

Wasp Bar Code Builder™

for Macintosh® Computers

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Software Version 2.0

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Introduction

Thank you for purchasing Wasp Bar Code Builder, a full-featured bar code printing software program for Macintosh computers, OS 7.0 to 9.2.

Wasp Bar Code Builder offers these capabilities...

- Creation of bar codes in the following symbologies: Code 3 of 9, Interleaved 2 of 5, Code 128, Code 93, UPC-A, UPC-E, EAN, and Codabar.
- Easy placement of bar codes, text, and graphic objects on a page or label.
- Easy printing of text documents merged with the bar code labels.

In addition, bar code graphics are created without fonts so there are no font-scaling problems that can result in hard-to-read bar codes.

You can use Wasp Bar Code Builder to print bar codes from a text data file merged with your document. Wasp Bar Code Builder will automatically update the printed bar code labels each time you update the text data file.

Wasp Bar Code Builder tools will be familiar to users of Macintosh drawing programs. Features include...

- A tool palette.
- Ability to group and ungroup objects and to bring items forward or send them back.
- A selection of patterns for painting lines and filling rectangles that can be chosen from the Line and Fill palette.
- The capability to rotate objects 90°.

With Bar Code Builder's unique bar code tool you can quickly generate bar codes in your document. A Bar Code Info window allows you to select symbology, size, and text location. You may use the Data palette to attach the bar code object to a text data file. The Sequence command allows you to attach a sequence of numbers to your bar code labels.

Detailed graphics and text can be cut from other programs and pasted into your Bar Code Builder document. Bar codes can also be copied or exported from Wasp Bar Code Builder and pasted into other software applications that support graphics.

To illustrate these capabilities, each chapter contains instructions and examples of how to accomplish tasks with Bar Code Builder. You may also use the Help windows to familiarize yourself with what Wasp Bar Code Builder can do.

Table of Contents

Introduction	iii
Chapter 1 - Installation	1
System Requirements	2
Installation	2
Where to Go From Here	4
Chapter 2 - Quick Start	5
How to Create a Bar Code	6
How to Merge Data	11
How to Print Labels	21
Chapter 3 - Menus	25
Chapter 4 - The Edit Window	31
The Edit Window	32
Setting up the Printed Page	33
Label Setup	35
Label Page Layout	36
Setting Label Heights and Widths	36
Number of Labels Across and Down	36
How to Set Page Margins for Label Sheets	37
How to Set the Space Between the Labels	38
Label Definitions	38
Viewing Your List of Label Types	39
Deleting Label Types	40
Work Area Display Preferences	41
Displaying Work Area Rulers	41
Setting Units of Measure	43
Performance Options	45
Drag Rectangles	45
Bar Code Object Place-Holders	46
Displaying Borders Around Attached Objects	47
Levels of Undo	48
Chapter 5 - Creating a Bar Code	49
Creating a Bar Code	50
How to Display the Tool Palette	50
The Bar Code Object	51
How to Create a Bar Code	51
Modifying Bar Codes - The Bar Code Info Window	54
Bar Code Symbolologies	56

Symbology Edit Areas	58
Bar Code Display Options	60
Setting Text Location	61
Displaying Extra Text	62
Bar Code Sizing Options	64
Bar Code Heights	65
Narrow Bar Width	66
Bar Code Ratios	70
Prefixes and Suffixes	71
Controlling the Display of Readable Text	73
Displaying Prefix and Suffix Characters	73
Toggling Stop and Start Characters for USS-39 and Codabar	75
Positioning UPC and EAN System Numbers	76
How to Size and Style Bar Code Text	78
Sizing and Styling Examples	81
 Chapter 6 - Working With Text and Graphics	 83
Working With Text and Graphics	84
Creating a Text Object	85
Creating Squares and Rectangles	86
Selecting Line and Fill Patterns	88
Creating Lines	90
Selecting and Moving Objects	90
Selecting Objects	91
Selecting Multiple Objects	92
Selecting All of the Objects in the Work Area	92
Grouping Objects	93
Moving Objects	95
Duplicating Objects	95
Deleting Objects	95
Rotating Objects	96
Object Layers	99
An Example Using Object Layering	102
Aligning Objects	103
An Alignment Example	104
Cutting and Pasting Objects	107
Cutting or Copying Objects	107
Pasting Data into a Document	108
 Chapter 7 - Saving and Printing	 109
Saving and Re-Opening your Document	110
Viewing a List of Open Documents	111
Printing a Document	112
Preview Before Printing	113
Printing Without a Preview	118
Optimizing Print Quality	119

Compensating for Print Bleed	119
Adjusting for Clarity	121
Controlling the Number of Copies to Print	122
Saving a Label Document	123
 Chapter 8 - Merging Data	 127
Merging Data	128
Opening a Data File	128
The Data Palette	130
Attaching Data to a Text Object	132
Attaching Data to a Bar Code Object	136
Attaching Data to the Copy Control Field	136
Sequencing	138
Attaching a Sequence to a Bar Code Object	138
Sequencing with Other Attached Data	139
Saving a Document with Attached Data	140
Detaching a Data Field or a Sequence	140
Anchoring Attached Data	141
 Appendix A: File Structure for Text Data Files	 145
Appendix B: Glossary of Terms	149

Chapter 1

This chapter shows you how to install Bar Code Builder. It also offers some suggestions on how to proceed through the rest of the manual.

System Requirements

For a successful installation of Wasp Bar Code Builder you should at least have...

- Macintosh computer with 4 MB RAM and System 7.X to 9.2.2. Will work only in Classic Mode with OS X.
- 2 MB of disk space to hold Wasp Bar Code Builder and its associated data files.

Installation

The Wasp Bar Code Builder program comes on a single installation disk. It contains the application program and supporting files.

To install Bar Code Builder on your system, use the following steps:

1. Insert the Bar Code Builder diskette into the disk drive on your computer.
2. Choose **New Folder** from the **File** menu and name the folder. In this example we will name the folder **Wasp Bar Code Builder**, but you may use any name you choose.
3. Double-click on the Wasp Bar Code Builder™ disk icon, to display the contents of the disk. See Figure 1-1.



Figure 1-1 Wasp Bar Code Builder Disk Contents

4. Select all of the items in the disk window and drag them to the new folder that you created. This copies Wasp Bar Code Builder, Wasp Help, OMNIDATA.TXT, and Help to the new folder.
5. Eject the Wasp Bar Code Builder disk from the disk drive and store in a safe place.



6. You are now ready to start. Double-click the icon to start the program.

Note: Wasp Bar Code Builder requires no modifications to your system files.

Where to Go From Here

You don't need to study each section of the manual to effectively use Wasp Bar Code Builder. You might select your topics of special interest in the Table of Contents and only study those sections.

Chapter 2 is intended as a quick tutorial to get you started. Following the steps in each Quick Start section can help you practice some of the basic operations.

Chapter 3 summarizes Wasp Bar Code Builder's menu commands.

Wasp Bar Code Builder is a label design and printing program. Chapter 4 describes how to set up the page and labels in your document.

If you are new to bar coding and the associated symbologies, Chapter 5 may be useful in helping you decide which symbology to use.

Wasp Bar Code Builder is an object oriented graphics program. Beginning users may want to browse through Chapter 6 for a description of how to work with objects.

Chapter 7 describes options for optimizing print quality for your bar codes.

Chapter 8 describes how to merge your labels with the contents of a data file. This chapter also describes how to create sequential labels and how to create multiple copies of your labels.

Chapter 2

Quick Start

This chapter contains step-by-step lessons that illustrate how to perform basic tasks with Wasp Bar Code Builder. You may follow the steps in these lessons to help you begin using the program right away. Later chapters will explain program functions in more detail.

Quick Start Lesson 1: How to Create a Bar Code

The following steps show you how to create a bar code. More detailed descriptions for tools, functions, and edit areas appear in later sections of the manual.

1. Start Wasp Bar Code Builder by double clicking its icon. A document window similar to Figure 2-1 appears, along with the Bar Code Info window and the tool palette.

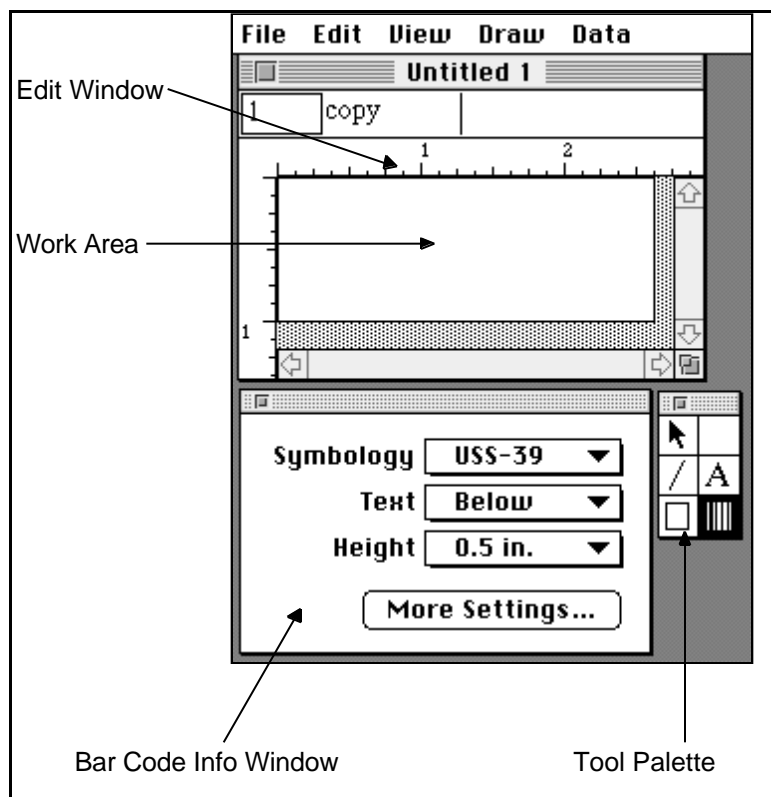


Figure 2-1 Wasp Bar Code Builder Document Window

2. At the Bar Code Info window, click the triangle to open the **Height** pop-up menu. See Figure 2-2.

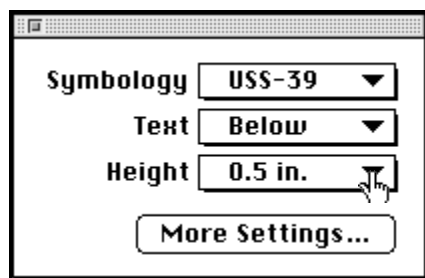


Figure 2-2 Bar Code Info Window - Selecting Bar Code Height

3. Change the setting to **0.25 in.** See Figure 2-3. This makes it easier to fit the bar codes and other objects into the labels that you create.

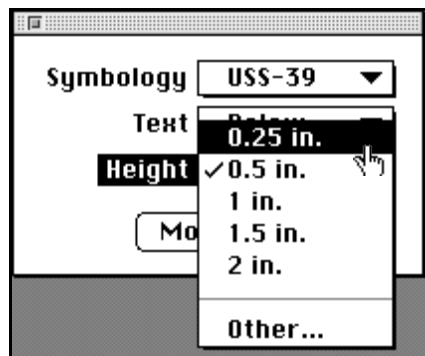


Figure 2-3 Bar Code Info Window - Bar Code Height Selected

4. Select the bar code tool from the tool palette. See Figure 2-4.



Figure 2-4 Select Bar Code Tool

5. The mouse pointer becomes a “+” when it’s placed anywhere in the work area. See Figure 2-5.

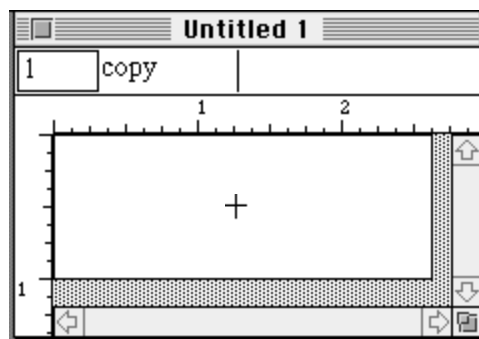


Figure 2-5 Bar Code Tool Pointer

6. Click on the location in the work area where you want to place the bar code. A bar code object appears where you click. See Figure 2-6. A bar code may be placed anywhere in the Edit window, however only the white work area within the rulers will print. (This manual discusses the Edit window and work area in further detail in Chapter 4.)

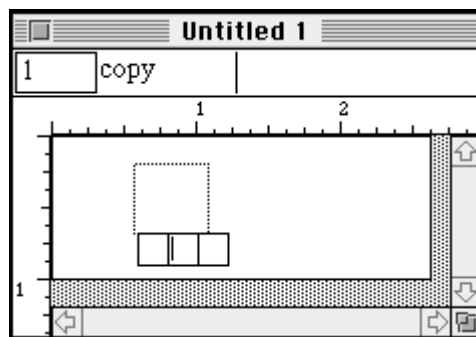


Figure 2-6 Bar Code Object

7. The bar code object has three edit areas for entering data. See Figure 2-7. Edit area 1 is for entering a prefix, edit area 2 is for the main text, and edit area 3 is for entering a suffix.

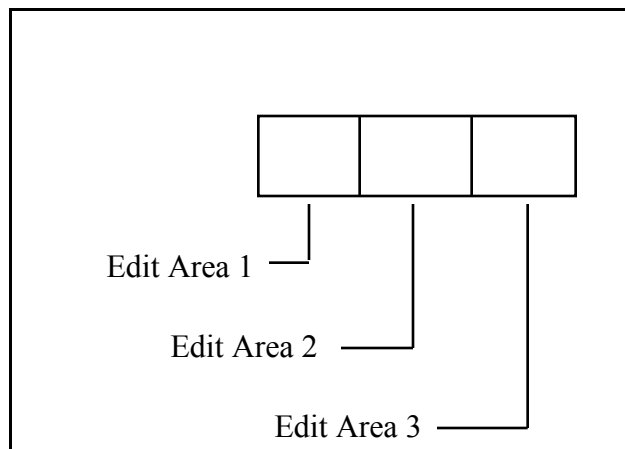


Figure 2-7 Bar Code Object Edit Areas

8. When the bar code object first appears, the cursor is in edit area 2. To create a bar code, type in text. As you type, text appears in the edit area and the bar code is automatically created in the open area above the edit areas. See Figure 2-8.

To enter a prefix, click in edit area 1 and then type the prefix. To enter a suffix, click in edit area 3 and then type the suffix. Refer to Chapter 5 for detailed information about edit areas.

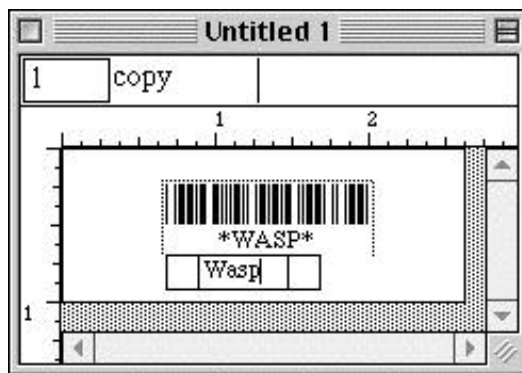


Figure 2-8 Creating Bar Code

9. When you select another object or tool, the bar code object edit areas disappear, and the bar code object appears in its normal state. See Figure 2-9.

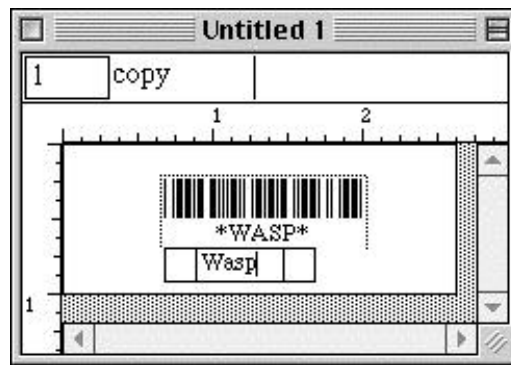


Figure 2-9 Bar Code with Human Readable Text Displayed Below

Quick Start Lesson 2: How to Merge Data

You can create bar codes from a list contained in an ASCII data file. (Appendix A describes the format of files used to merge data.) The following example illustrates how to merge text data with labels:

1. Choose **Label Setup** from the **Edit** menu. See Figure 2-10.



Figure 2-10 Edit Menu - Label Setup Command

2. The **Label Setup** window appears. See Figure 2.11. Verify that **30/sheet** is selected at the **Label Type** pop-up menu. Then click **OK**. This selection allows you to print up to 30 labels on a page.

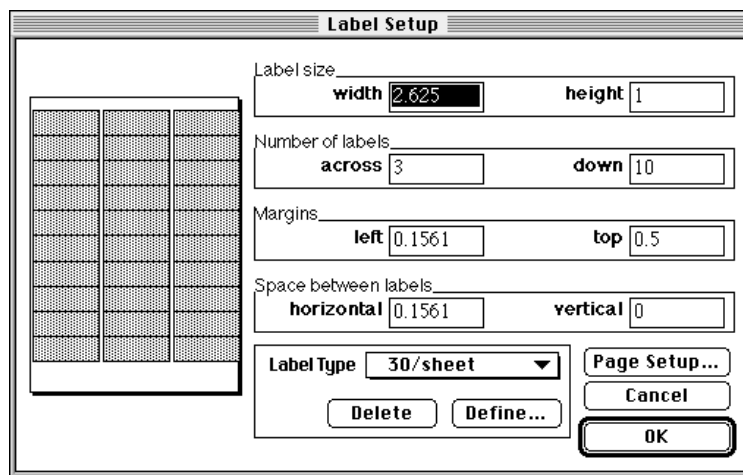


Figure 2-11 Label Setup Window

3. Choose **Open Data** from the **Data** menu. See Figure 2-12.

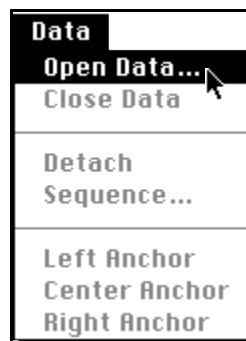


Figure 2-12 Data Menu - Open Data Command

4. Open the data file called **OMNIDATA.TXT** . See Figure 2-13.

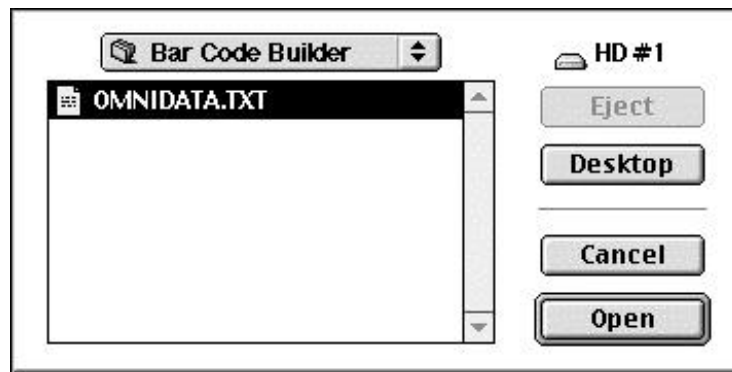


Figure 2-13 Open OMNIDATA.TXT

5. The data palette automatically appears and displays a single record from the data file. Note that there are three data fields in the first record of **OMNIDATA.TXT** . The first field is displayed on the top line of the data palette, the second field on the second line, and the third field on the third line. See Figure 2-14. Use the mouse pointer to enlarge the window wide enough to display all the characters in the record.

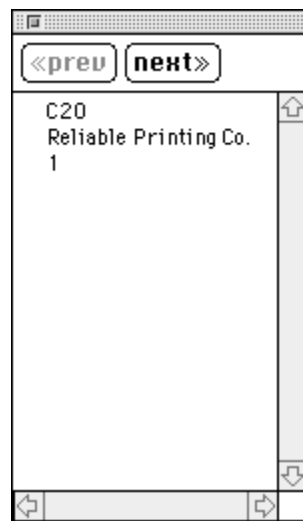


Figure 2-14 Data Palette with OMNIDATA.TXT

Click **next >>** to scroll forward through the data file one record at a time. To scroll back through the file, click << **prev** . Note that the name of the file appears above the work area of the Edit window. See Figure 2-15.

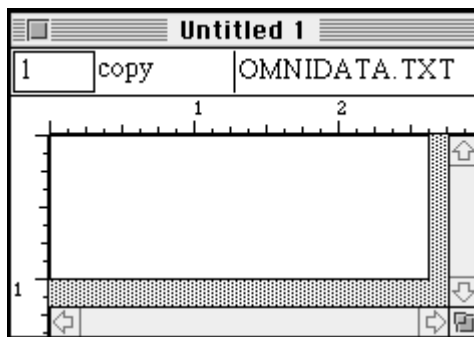


Figure 2-15 Name of Data File in Edit Window

6. Verify that the Bar Code Info window is open. If it is open, it appears like Figure 2-16. If it does not appear, choose **Bar Code Info** from the **View** menu or press **M** to display the window.

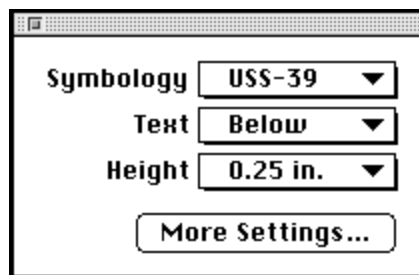


Figure 2-16 Bar Code Info Window

7. Verify that **Symbology** is set to **USS-39** as shown in Figure 2-16. If another symbology is displayed, click the triangle to display the pop-up menu and select **USS-39**.

8. Select the bar code tool from the tool palette and click on a location at approximately the top of the work area. See Figure 2-17.

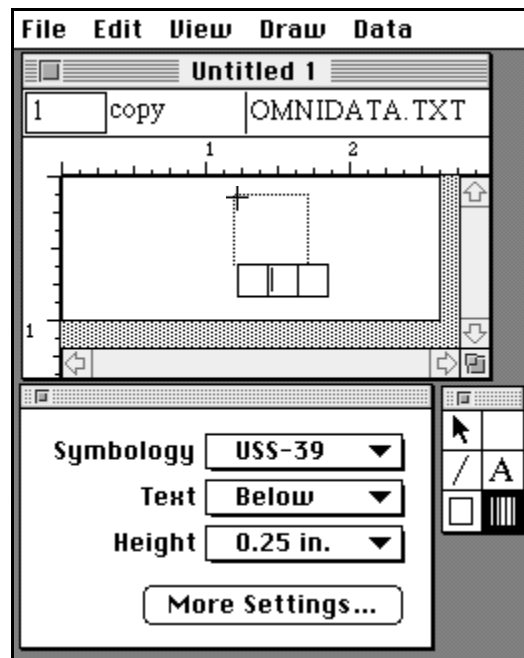


Figure 2-17 Bar Code Tool Selected and Step 8 Completed

- Click on the first data field in the data palette. The program automatically creates a bar code object in the work area. See Figure 2-18.

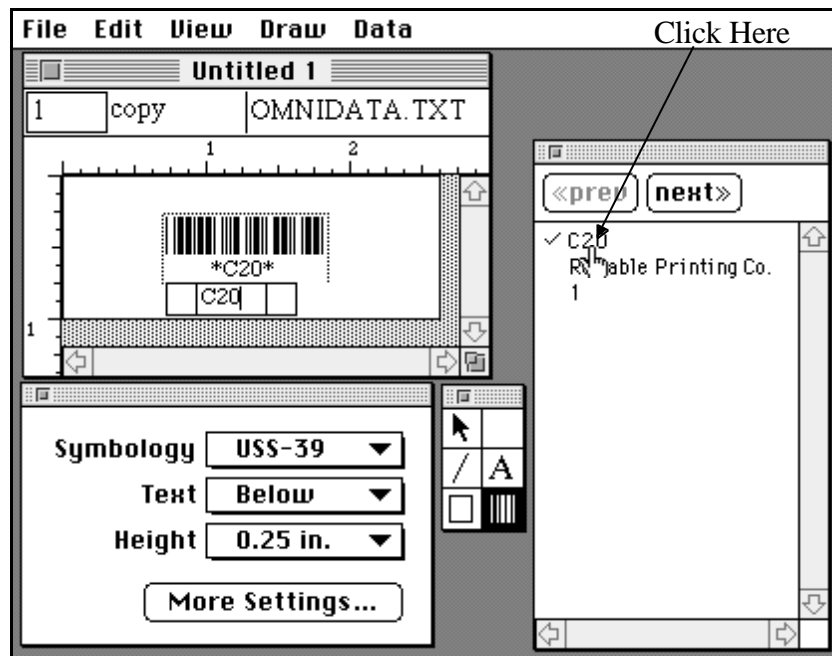


Figure 2-18 Selecting a Data Field From the Data Palette

You may press the **next >>** or **<<prev** button to scroll through the data file. Note that the bar code changes with each new record.

- In the Bar Code Info window, select **Hidden** for the Text Location. See Figure 2-19.

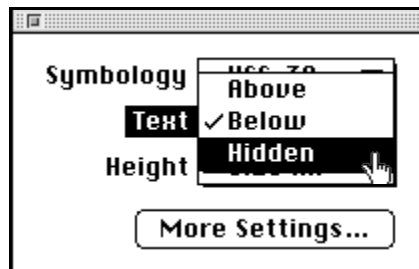


Figure 2-19 Bar Code Info Window - Selecting Hidden Text

11. Select the text tool from the tool palette and click on a location in the work area under the bar code object. See Figure 2-20.

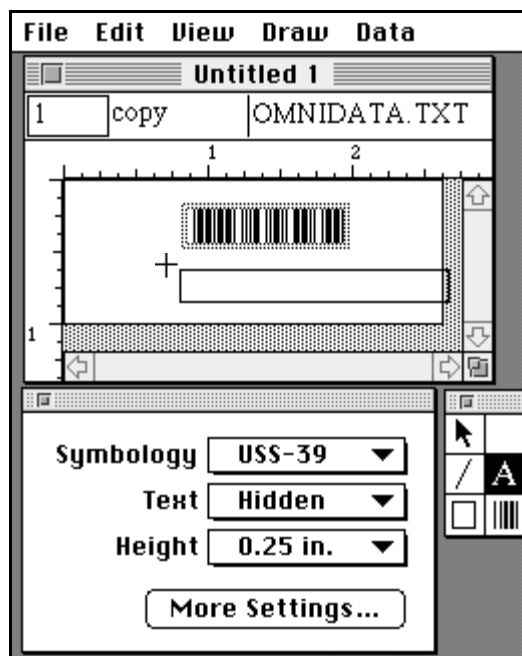


Figure 2-20 Text Tool Selected and Step 11 Completed

12. Move the pointer to the data palette. Click on the second data field and a text object is automatically created based on the second field in the data file. See Figure 2-21.

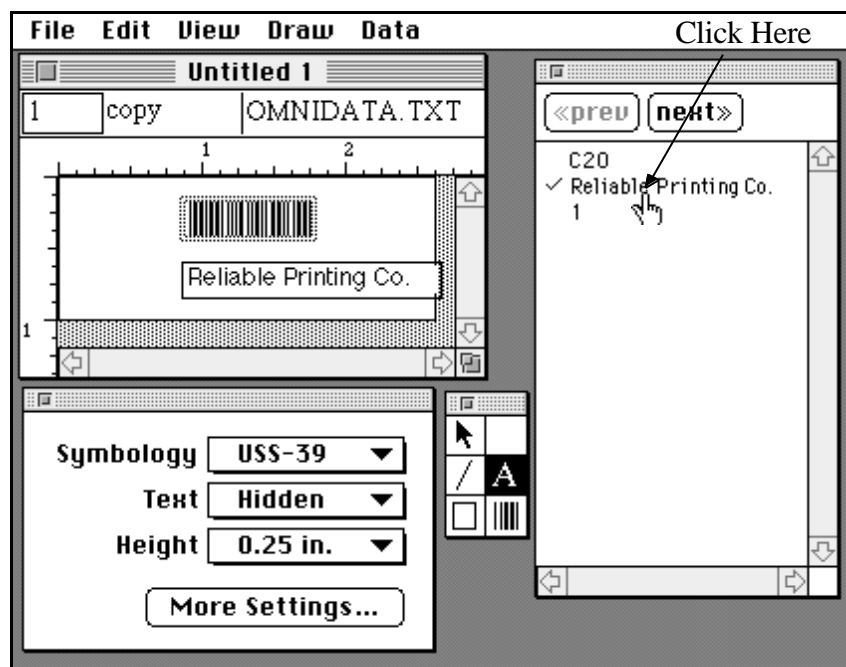


Figure 2-21 Attaching Data to a Text Object

Again, you may press the **next >>** or **<< prev** button to scroll through the data. Note that both the text object and the bar code change with each new record.

13. You can also use data from the data palette to control the number of copies to print of each label. To attach data to the Copy Control field in your document, select the arrow tool from the tool palette and click on the Copy Control field above the work area in your document. See Figure 2-22.

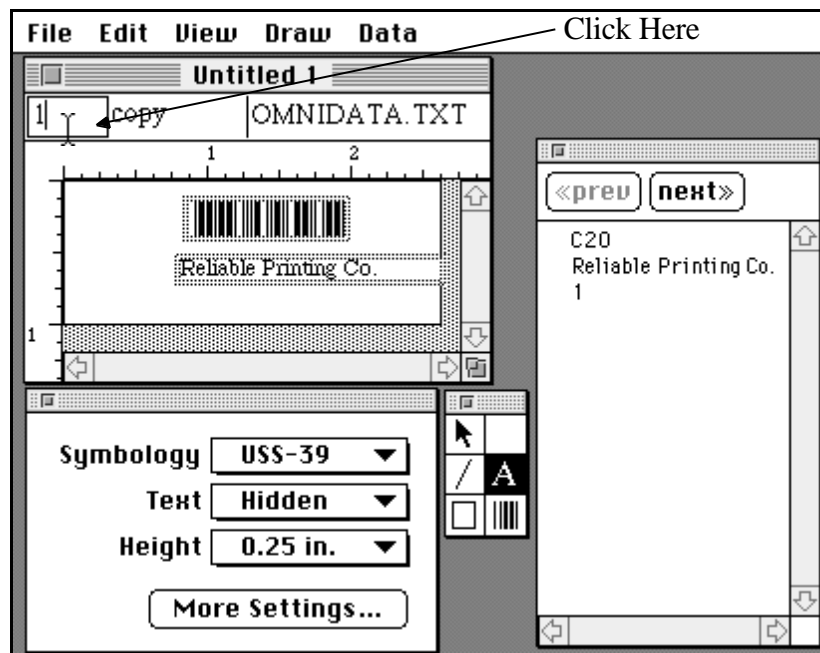


Figure 2-22 Selecting the Copy Control Field

14. Select the third data field in the data palette. See Figure 2-23.

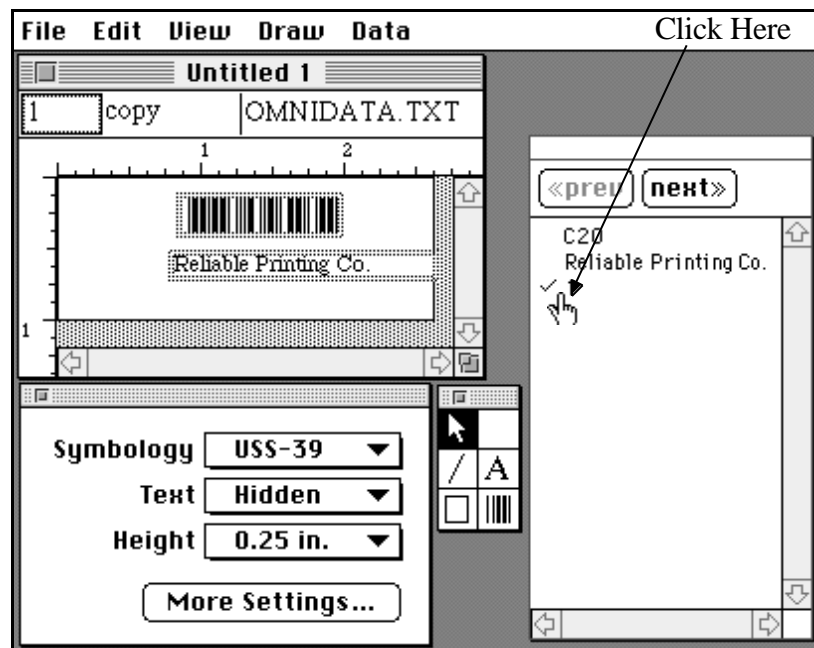


Figure 2-23 Attaching Data to the Copy Control Field

Now when you click on the **next** >> and << **prev** buttons to scroll through the data, the number of copies of each label is controlled by the third data field in **OMNIDATA.TXT** and is reflected in the Copy Control field in your document.

15. Choose **Print Preview** from the **File** menu to view how the merged data will appear when it is printed.

Quick Start Lesson 3: How to Print Labels

Follow these steps to print the labels that you have created in either of the previous two lessons.

1. Create labels on-screen using the steps outlined in Quick Start Lesson 1 or Lesson 2.
2. Choose **Print Preview** from the **File** menu. See Figure 2-24.

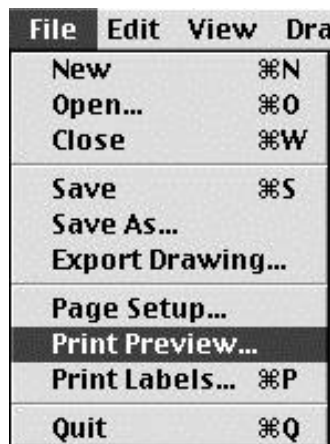


Figure 2-24 File Menu - Print Preview Command

Although print preview is not a required step, it is a good practice to review how your labels will appear on the printed page before printing them.

After choosing **Print Preview**, a window similar to Figure 2-25 appears.

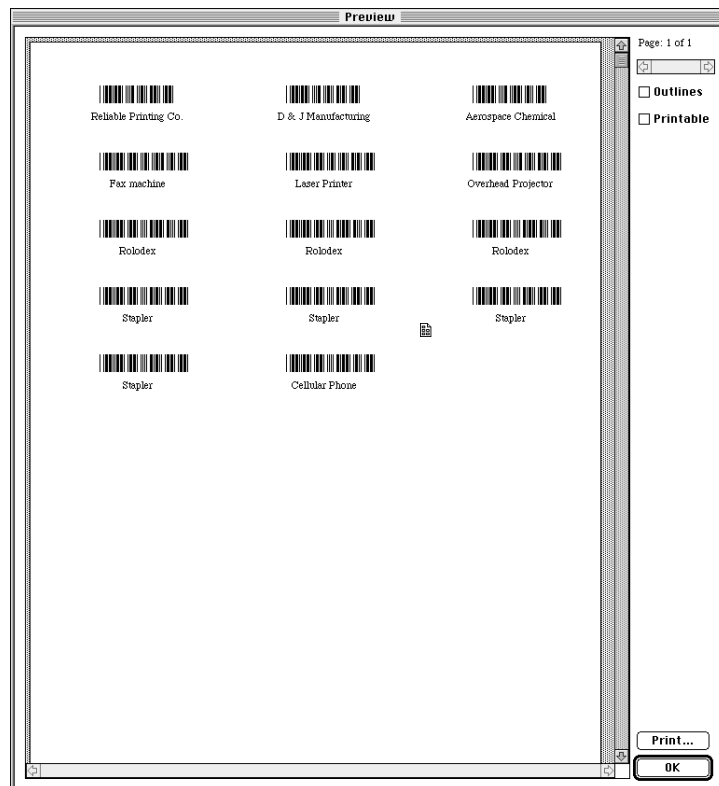


Figure 2-25 Print Preview Window

3. In the Print Preview window, the pointer becomes a label page when you position it over the label document. Click it to zoom out for a full-page view.

4. Click the **Outlines** selection box. With outlines selected, an outline of the labels on your page is displayed. See Figure 2-26.

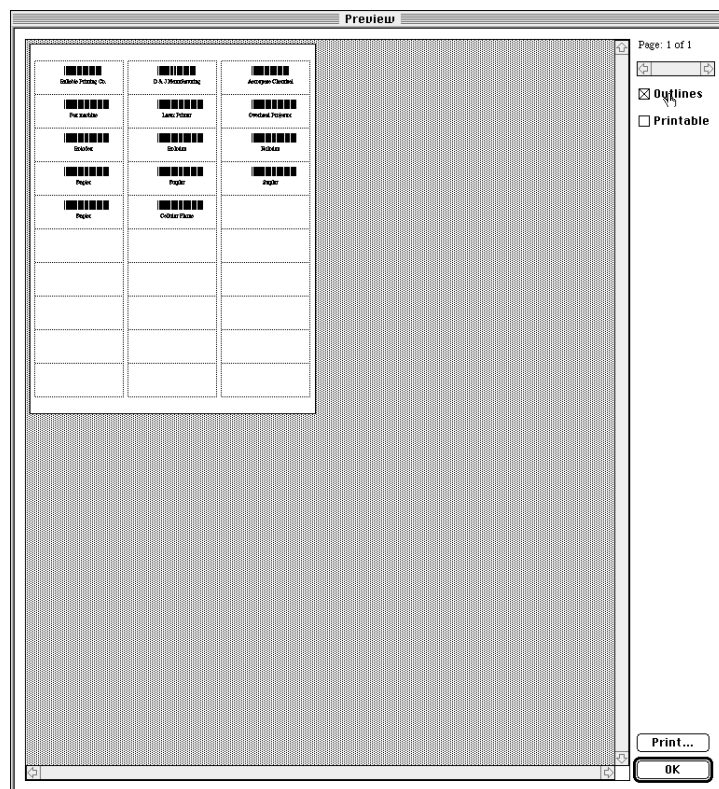


Figure 2-26 Print Preview with Label Outlines

5. Use this preview to verify that the labels are correct, then click **Print** to print the labels.

Wasp Bar Code Builder supports most printers that support graphics and interface with the Macintosh system. However, to insure that you are creating high-quality, easily-read bar codes, you should refer to Chapter 7 of this manual, print some samples, and test them to be sure they will serve your needs.

Notes:

Chapter 3

Wasp Bar Code Builder Menus

This chapter gives an overview of each of Wasp Bar Code Builder's menus. It is intended as a quick reference to learn or review the command functions.

File Menu

The **File** menu commands are for document file management, for exporting objects to a file, and for printing documents. This menu also provides the command for quitting Wasp Bar Code Builder.

(Note: Choose **About Wasp Bar Code Builder** from the *Apple* menu to display the program version number.)

File	Edit	View	Dr
New		⌘N	← Open new document.
Open...		⌘O	← Open saved document.
Close		⌘W	← Close current document.
Save		⌘S	← Save current document.
Save As...			← Save or rename current document.
Export Drawing...			← Save selected object as a Pict file with embedded postscript.
Page Setup...			← Display page and printer information.
Print Preview...			← Display preview of print-out.
Print Labels...		⌘P	← Print the labels.
Quit		⌘Q	← Quit the program.

Figure 3-1 File Menu

Edit Menu

The **Edit** menu provides commands for setting up the work area and editing the objects.

Edit	View	Draw	Data	
Undo Create Text			⌘Z	← Undo last command or action.
Redo Change Text			⌘Y	← Redo last command or action.
Cut			⌘H	← Cut selected object(s) to clipboard.
Copy			⌘C	← Copy selected object(s) to clipboard.
Paste			⌘V	← Paste clipboard contents to document.
Clear				← Delete selected object(s).
Select All			⌘A	← Select all objects in document.
Duplicate			⌘D	← Duplicate selected object(s) in document.
Label Setup...				← Display label sizing options.
Preferences...				← Display program preferences.

Figure 3-2 Edit Menu

View Menu

The **View** menu contains commands for selecting windows and palettes to display. It also has a command to open the Wasp Bar Code Builder Help file and it lists the open documents in Wasp Bar Code Builder.

View	Draw	Data	File
✓ Rulers			
✓ Tools		⌘T	
Line and Fill		⌘H	
✓ Bar Code Info		⌘M	
Data Palette			
Help		⌘/	
✓ Untitled 1			

←

Display rulers at top and left of work area.

←

Display tool palette.

←

Display line and fill palette.

←

Display bar code specification window.

←

Display the palette for attaching label objects to a data file.

←

Display help system.

←

List of open document(s).

Figure 3-3 View Menu

Draw Menu

The **Draw** menu contains commands for grouping, layering, and rotating the objects in the work area. It also offers commands specific to text objects for selecting font and justification.




Draw Data	
Font... ⌘F	← Display font dialog box for text objects.
✓  Left Justify	← Left justify text object.
 Center Justify	← Center justify text object.
 Right Justify	← Right justify text object.
<hr/>	
Group ⌘G	← Group selected objects into single object.
Ungroup ⌘U	← Separate grouped object into individual objects.
<hr/>	
Bring Forward ⌘=	← Move selected object forward one layer.
Send Back ⌘-	← Move selected object back one layer.
<hr/>	
Alignment...	← Display alignment options for selected object.
<hr/>	
Rotate Left	← Rotate selected object(s) 90° left.
Rotate Right	← Rotate selected object(s) 90° right.
Flip Horizontal	← Flip selected object(s) horizontally.
Flip Vertical	← Flip selected object(s) vertically.

Figure 3-4 Draw Menu

Data Menu

The **Data** menu contains commands for opening and closing a text data file, attaching a sequence to an object, and fixing an attached object within the label.

Data	
Open Data...	← Open text data file for merging with document.
Close Data	← Close open data text file - automatically detaches data.
Detach Sequence...	← Detach data field from an object.
	← Display sequence dialog box for attaching a numeric sequence to a text or bar code object.
✓ Left Anchor	← Left justify object attached to data.
Center Anchor	← Center justify object attached to data.
Right Anchor	← Right justify object attached to data.

Figure 3-5 Data Menu

Chapter 4

The Edit Window

Chapter 4 describes how to set up the page and labels in your document. The following topics are presented:

- Edit Window
- Label Setup
- Rulers
- Units of Measure
- Display Preferences

The Edit Window

The Edit window is the portion of a document window that displays the bar code labels, graphics, and text that you design. When you start Wasp Bar Code Builder, a document window similar to Figure 4-1 appears.

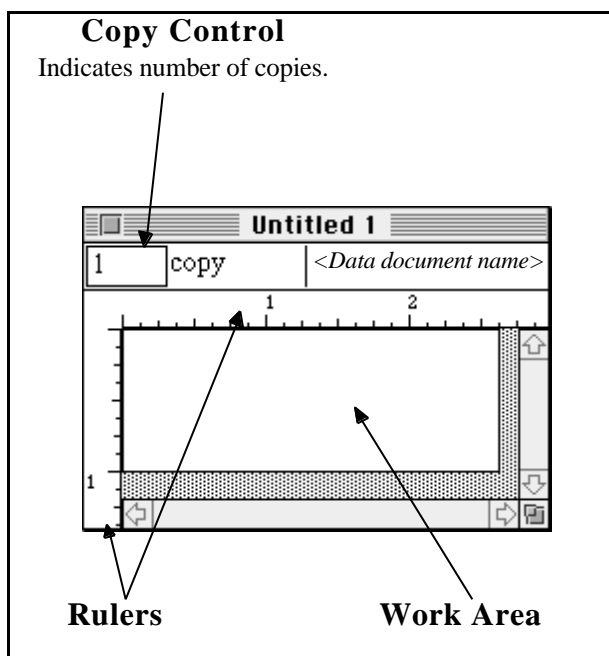


Figure 4-1 Wasp Bar Code Builder Edit Window with Rulers On

The Edit window consists of these functional parts:

- Above the Edit window is the Copy Control field that allows you to choose how many copies of each label you want to print.
- Immediately to the right of the Copy Control is a display area that shows the path and name of the text data document to be merged with the labels, if one is chosen. (See Chapter 8, Merging Data.)
- Immediately below the Copy Control, and along the left side of the window, are optional rulers. These are for reference only, and are marked in the current measurement unit. The measurement unit is set with the **Preferences** command (see page 43).

- Within the Edit window is a white label design area on a gray background; this white area is called the work area. The size of the work area is determined by the label setup. (See page 35.) To print your labels, all bar codes, text, and other graphics must be placed within the perimeter of the work area. Any object in the gray background area will not print. The gray background area may be used as a temporary work area for creating, sizing, and holding your graphic objects until you are ready to drag them to the white label design area.

Setting up the Printed Page

Before making a label template, you must tell Wasp Bar Code Builder the page and label size. The page sizes and other choices available are controlled by the print driver installed with your system.

Choose **Page Setup** from the **File** menu (see Figure 4-2) or click on **Page Setup** from the **Label Setup** window (see Figure 4-5).

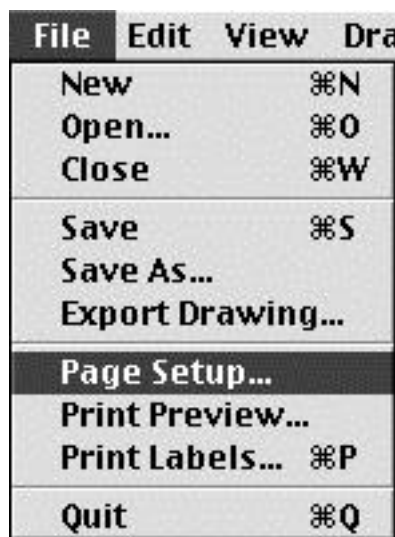


Figure 4-2 File Menu - Page Setup Command

A Page Setup window appears for your currently installed printer. If your system has a LaserWriter print driver installed, a window similar to Figure 4-3 appears.

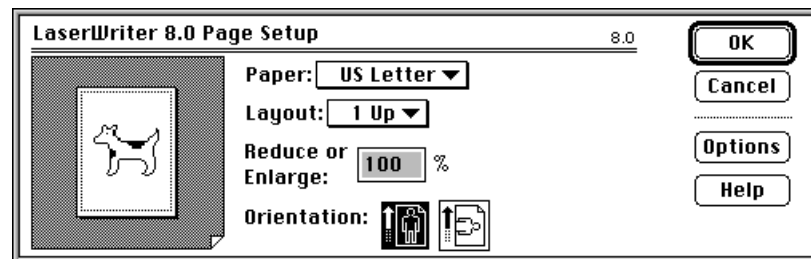


Figure 4-3 Page Setup Window

Check to be sure that your label dimensions will fit within the size of the page you have selected. Label dimensions are discussed in the Label Setup section of this chapter.

Refer to your Macintosh manual for detailed instructions about using the Page Setup command.

Label Setup

Since the work area in the Edit window represents the size of the label that will print, you may want to change or customize its size. Choose **Label Setup** from the **Edit** menu. See Figure 4-4. The **Label Setup** window is displayed. See Figure 4-5.

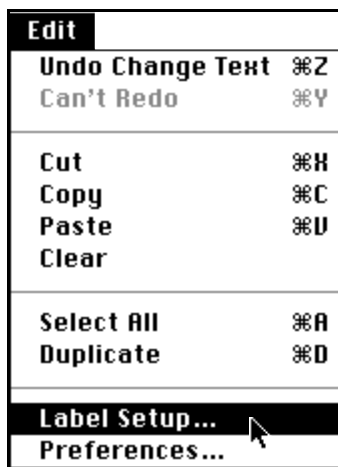


Figure 4-4 Edit Menu - Label Setup

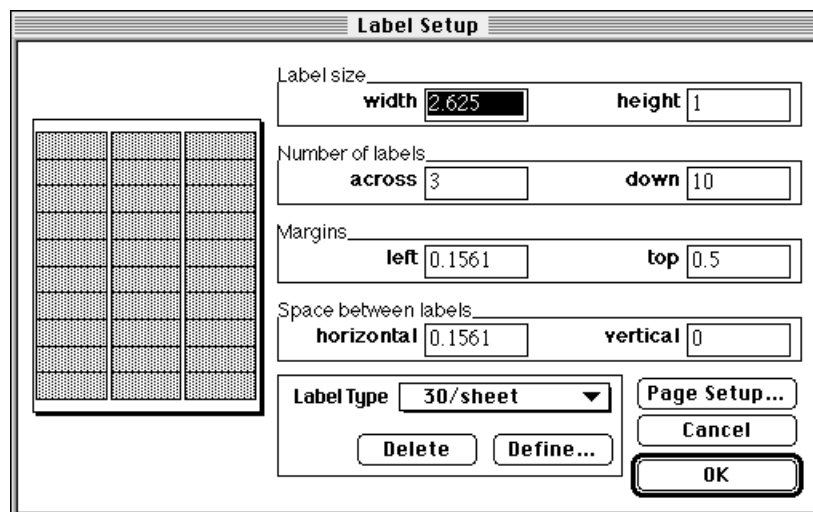
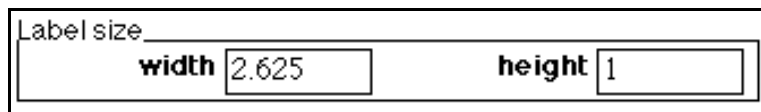


Figure 4-5 Label Setup Window

You may use this window to adjust the size of your label. You may also use it to define how your labels will align on the printed page. Note that the **Label Setup** window presents a thumbnail sketch of how your labels will appear on the page.

Label Page Layout

Setting Label Heights and Widths



The screenshot shows a window titled "Label size" with two input fields. The first field is labeled "width" and contains the value "2.625". The second field is labeled "height" and contains the value "1".

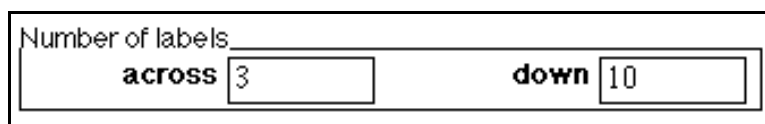
Figure 4-6 Height and Width Edit Boxes from Label Setup Window

Use the **width** and **height** fields in the Label Setup window to define the dimensions of each label. The units of measure are defined by the **Preferences** command. (See page 43.) If you are using pre-made printer labels, simply enter the dimensions of the label you will use.

Note: Bar code readers require a “quiet zone” at the beginning and end of the bar code. The quiet zone is a clear area with no bars. One quarter inch is adequate for most applications. Be sure to design your labels to accommodate both the bar code and the quiet zone.

Number of Labels Across and Down

Use the **across** and **down** fields in the **Label Setup** window to define the number of labels that will print on a page. See Figure 4-7.



The screenshot shows a window titled "Number of labels" with two input fields. The first field is labeled "across" and contains the value "3". The second field is labeled "down" and contains the value "10".

Figure 4-7 Number of Labels Edit Boxes from Label Setup Window

If you are using pre-made printer label sheets, you can simply count the number of labels across and down on the sheets and fill in the number in the **Number of labels** edit boxes.

How to Set Page Margins for Label Sheets

Set the margins around the outside of your page using the **left** and **top** edit boxes. See Figure 4-8.

Figure 4-8 Margins Edit Boxes from Label Setup Window

When you enter page margins, Wasp Bar Code Builder automatically calculates the bottom and right margins based on the other label setup information you have entered in the **Label Setup** window. For example, if you enter these values...

	<u>Inches</u>
left margin	1
label width	3
number of labels across	2
space between labels	0.5

...Wasp Bar Code Builder automatically calculates a right margin of 1 inch for an 8-1/2 inch wide page. Bottom margins are calculated from what you enter in the top margin, label height, number of labels down, and vertical space between labels fields.

Note: Be careful not to set page margins smaller than the print area supported by your printer. Doing so may cause the printer to cut off or truncate part of your bar code.

How To Set the Space Between the Labels

Many pre-made printer labels have spaces between the labels. Use the **Space between labels** edit boxes to enter vertical and horizontal spacing between labels. See Figure 4-9.

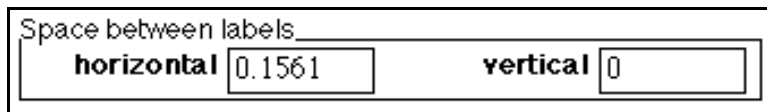
A rectangular dialog box titled "Space between labels". Inside, there are two labels: "horizontal" and "vertical". Next to "horizontal" is a text input field containing the value "0.1561". Next to "vertical" is a text input field containing the value "0".

Figure 4-9 Space Between Labels Edit Box from Label Setup Window

Label Definitions

Once you have entered label setup values that print labels the way you want them, you can save your setup and assign it a name. To do so, click **Define** in the **Label Setup** window. See Figure 4-10.

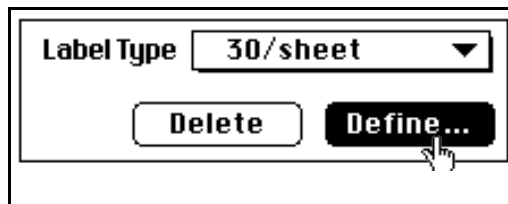
A rectangular window titled "Label Setup". It contains a label "Label Type" followed by a dropdown menu showing "30/sheet". Below this, there are two buttons: "Delete" and "Define...". A mouse cursor is pointing at the "Define..." button.

Figure 4-10 The Define Button at the Label Setup Window

The dialog box shown in Figure 4-11 is displayed. Enter a defining name and click **OK** or press <**Return**> . Wasp Bar Code Builder saves your label setup configuration and returns to the **Label Setup** window.

If you change your mind and decide not to save your configuration, click **Cancel** .

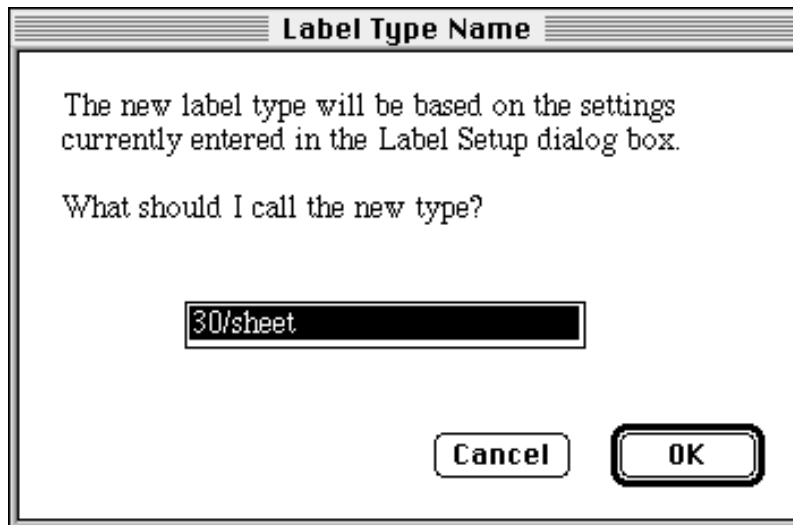


Figure 4-11 Label Type Name Dialog Box

Viewing Your List of Label Types

You may view the list of label types defined in your system by opening the **Label Type** pop-up menu in the **Label Setup** window. See Figure 4-12.

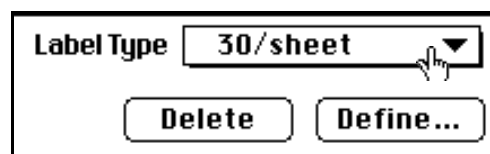


Figure 4-12 Label Type Button in Label Setup Window

When you open the pop-up menu, a list with all of your defined label types will appear. See Figure 4-13.

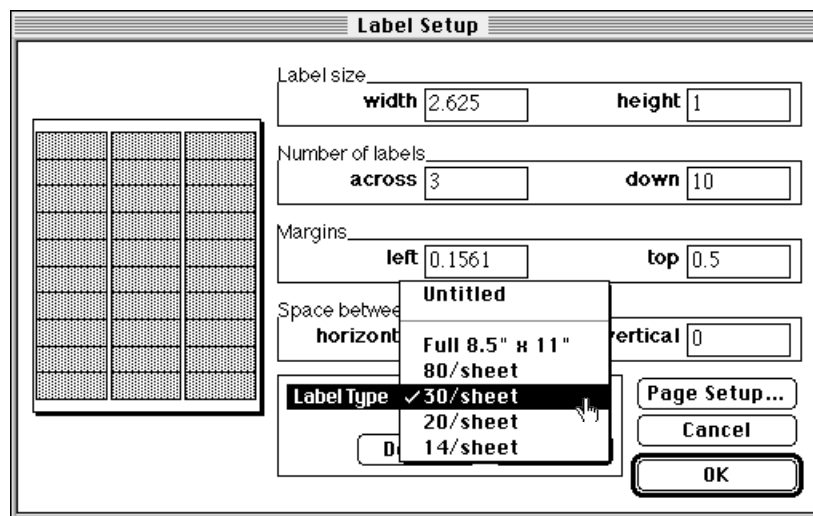


Figure 4-13 Label Type Edit Window from Label Setup Window

When you choose a label type from the list, Wasp Bar Code Builder automatically enters the values for that label type into the **Label Setup** window edit boxes.

Deleting Label Types

You may delete label types from your list of label definitions. Select the label type and click **Delete** in the **Label Setup** window. See Figure 4-14.



Figure 4-14 Delete Button from the Label Setup Window

A window similar to Figure 4-15 appears. Click **Delete** to remove the current label type from the list, or click **Cancel** to close the dialog box without deleting a label type.

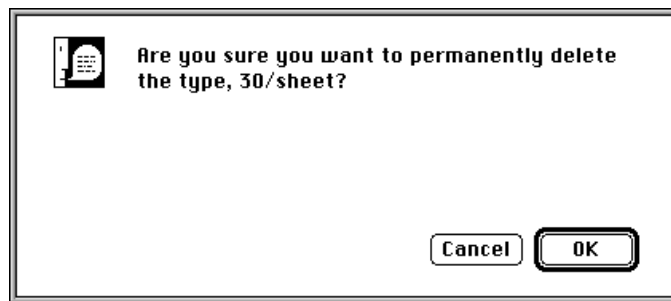


Figure 4-15 Warning Dialog Box from Delete Label Type Button

Work Area Display Preferences

Displaying Work Area Rulers

You may choose not to display rulers along the top and side of the label work area. To toggle the rulers OFF or ON, choose **Rulers** from the **View** menu. See Figure 4-16. If a check mark appears before **Rulers** in the menu, the rulers are on; if there is no check mark the rulers are off.



Figure 4-16 View Menu - Rulers Command

Figures 4-17 and 4-18 show views of the work area with rulers on and off.

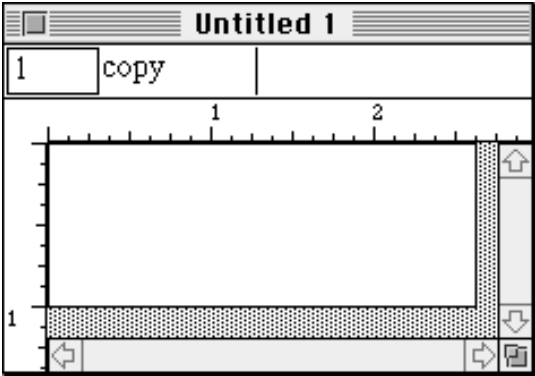


Figure 4-17 Wasp Bar Code Builder Work Area with Rulers ON

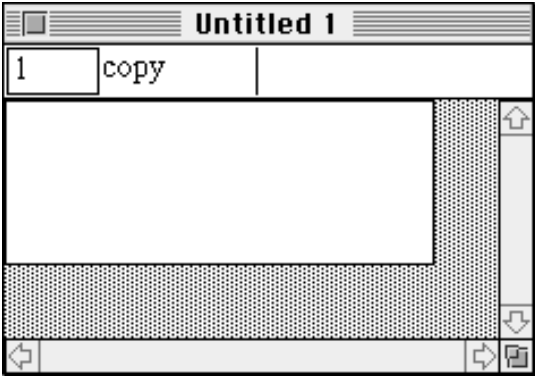


Figure 4-18 Wasp Bar Code Builder Work Area with Rulers OFF

Setting Units of Measure

You may select a unit of measure for setting up your label layout and for displaying the rulers. To select the unit of measure choose **Preferences** from the **Edit** menu. See Figure 4-19.

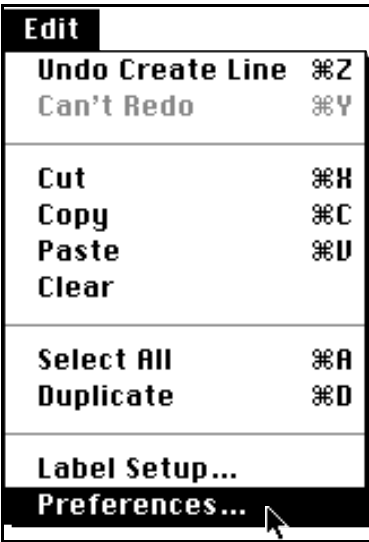


Figure 4-19 Edit Menu - Preferences Command

The **Preferences** window appears. See Figure 4-20.

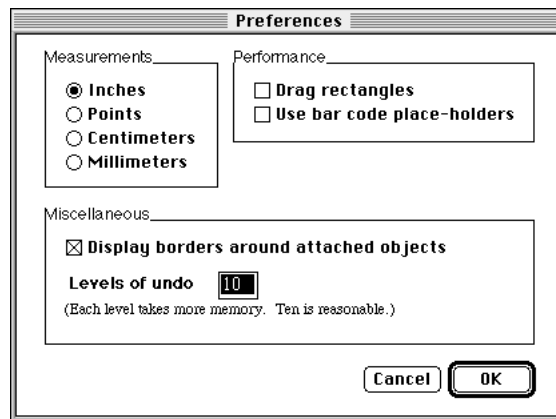


Figure 4-20 Preferences Window

Select a unit of measure (Inches, Points, Centimeters, or Millimeters), then click **OK** to initiate the change. If you decide not to change the unit of measure, click **Cancel**.

Wasp Bar Code Builder automatically converts the values in the **Label Setup** window (Figure 4-5) to the new units. For example, a margin of 1 inch converts to 72 points.

Performance Options

Drag Rectangles

Some computers are slow to update the display when you drag an object. If moving an object is too slow on your computer, you may prefer to drag an outline of your object to speed the display. Click on the **Drag rectangles** box in the **Preferences** window. See Figure 4-21.

Press and hold the command () key before dragging an object to temporarily toggle this setting.

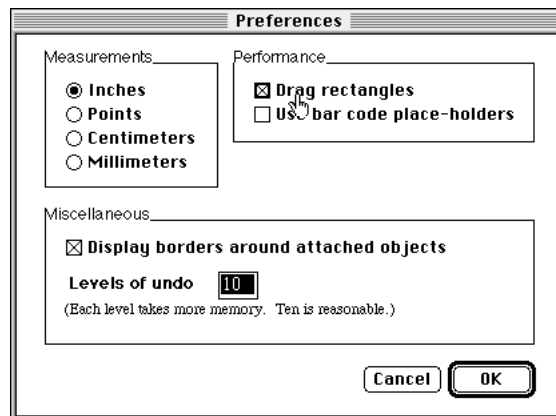


Figure 4-21 Drag Rectangles Preference

Bar Code Object Place-Holders

To further improve performance you may choose to display bar code objects as gray boxes instead of as bar codes. See Figure 4-22. Doing so saves display processing time and increases the program's performance.

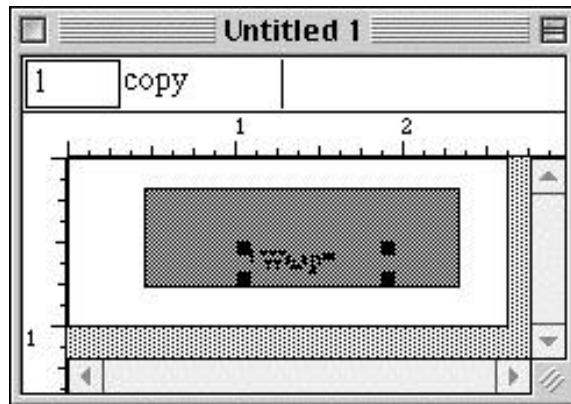


Figure 4-22 Bar Code Object Held by Place-Holder

To display bar code objects as a gray box place-holders, click on the **Use bar code place-holders** box in the **Preferences** window. See Figure 4-23. Bar code objects will print as bar codes regardless of whether you have selected this option.

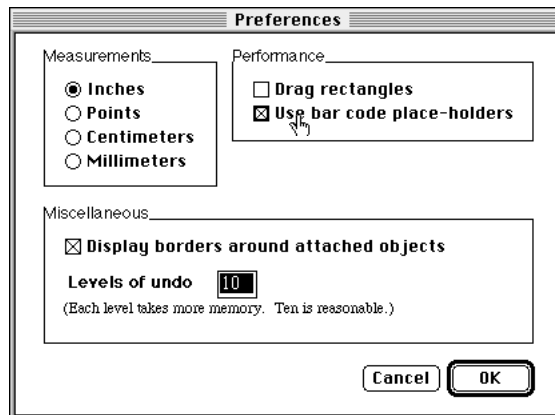


Figure 4-23 Preferences Window - Selecting Use Bar Code Place-Holders

Displaying Borders Around Attached Objects

Wasp Bar Code Builder allows you to merge your bar code and text label objects with a text database. You may choose to display the merged or “attached” objects with a border as a visual reminder that their contents vary with the contents of the data text file. See Figure 4-24.

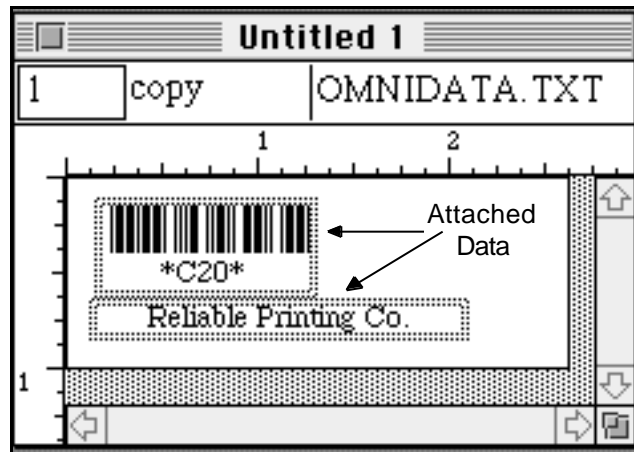


Figure 4-24 Borders Around Attached Data

To toggle this option, click on the **Display borders around attached objects** box in the **Preferences** window. See Figure 4-25.

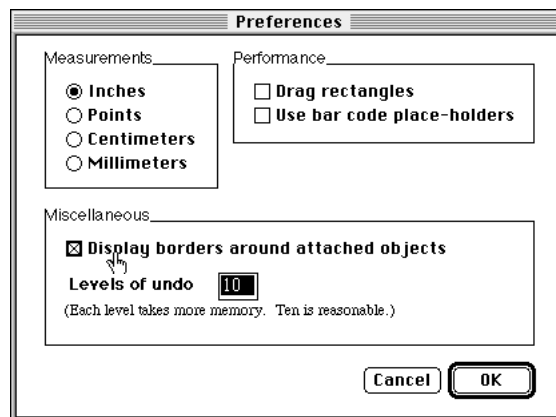


Figure 4-25 Preferences Window Display Borders

Levels of Undo

Wasp Bar Code Builder can store and undo many of the keystrokes, actions, and commands you enter. Each action requires that a certain amount of memory be set aside. You may control the number of “Undo” steps available to you by setting the **Levels of undo** as shown in Figure 4-26. Wasp Bar Code Builder suggests that 10 levels should be adequate for most applications.

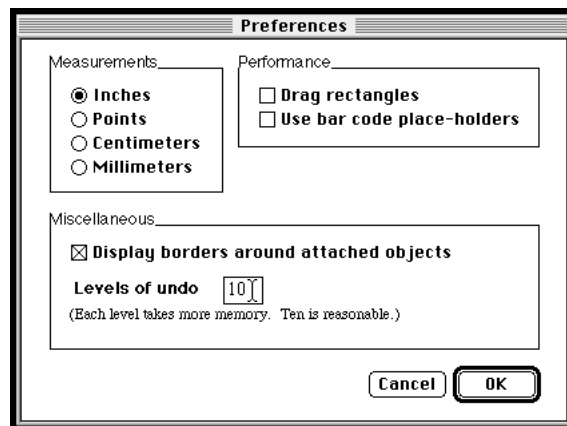


Figure 4-26 Preferences Window - Levels of Undo

Chapter 5

Creating a Bar Code

This chapter discusses the fundamentals of creating a bar code with Wasp Bar Code Builder. It contains sections on the following program features:

- The Tool Palette
- A Bar Code Object
- The Bar Code Info Window
- Bar Code Symbolologies
- Bar Code Display and Sizing Options
- Bar Code Ratios
- Prefixes and Suffixes
- Controlling the Display of Readable Text

Creating a Bar Code

The bar codes that Wasp Bar Code Builder creates are draw objects. Users of Macintosh draw programs will recognize draw objects as on-screen entities that can be moved, rotated, duplicated, copied, or deleted. They may also be copied to the Clipboard for pasting into other applications that support draw objects. Wasp Bar Code Builder also allows you to export selected objects to a PICT file with embedded postscript.

How to Display the Tool Palette

To display the tool palette, choose **Tools** from the **View** menu or type **T** from the computer keyboard. See Figure 5-1.



Figure 5-1 View Menu - Tool Palette Command

If the tool palette is open, a check mark appears before **Tools** in the **View** menu. If the tool palette is not open, a check mark will not appear before **Tools** in the **View** menu.

To create, select, or edit an object, you must first select a tool from the tool palette. See Figure 5-2.

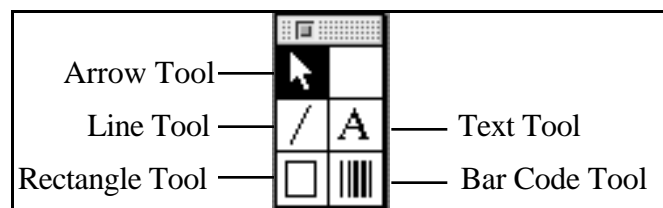


Figure 5-2 Tool Palette

The Bar Code Object

How to Create a Bar Code

Select the bar code tool by clicking on the bar code icon at the tool palette. See Figure 5-3.

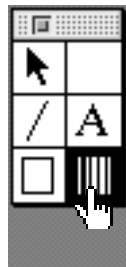


Figure 5-3 Selecting the Bar Code Tool from the Tool Palette

When the bar code tool has been selected, the pointer changes to a crossbar within the work area. See Figure 5-4. Move the pointer to the work area.

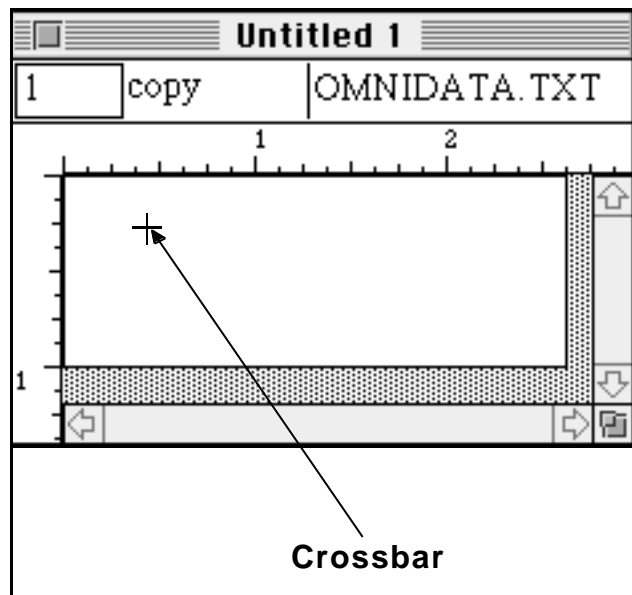


Figure 5-4 Bar Code Tool Crossbar

The crossbar shows where the upper left corner of the bar code object will be placed. Click on a location in the work area to place the bar code object. After clicking, a bar code object editor appears in the work area. See Figure 5-5.

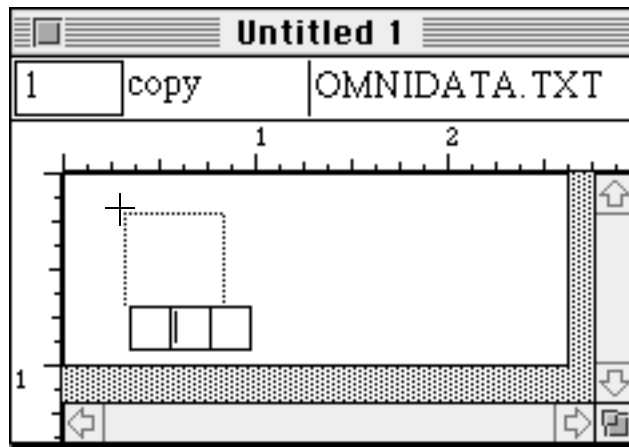


Figure 5-5 Bar Code Object Editor

The bar code object editor in Figure 5-5 contains three edit areas for entering bar code data.

To create a bar code, enter text in the active edit area. If you type valid characters for the chosen symbology, Wasp Bar Code Builder automatically creates a bar code in the open area above the edit areas. See Figure 5-6.



Figure 5-6 Bar Code Object After Entering Text

You may enter data for a bar code in any of the three edit areas. However, if you are using prefixes or suffixes in your bar code, enter the prefix in edit area 1 and enter the suffix in edit area 3.

If Wasp Bar Code Builder does not create a bar code from your text, you may be entering incorrect characters or an incorrect number of characters for the selected symbology. Figure 5-6 illustrates an example bar code using the USS-39 symbology. Refer to Table 5-2 on pages 58–59 for information on bar code symbologies.

Modifying Bar Codes - The Bar Code Info Window

Before you begin creating bar code documents you should define the specifications of the bar codes. Wasp Bar Code Builder uses the settings in the Bar Code Info window to do this.

Open the Bar Code Info window by choosing **Bar Code Info** from the **View** menu or by entering **M** from the computer keyboard. See Figure 5-7.

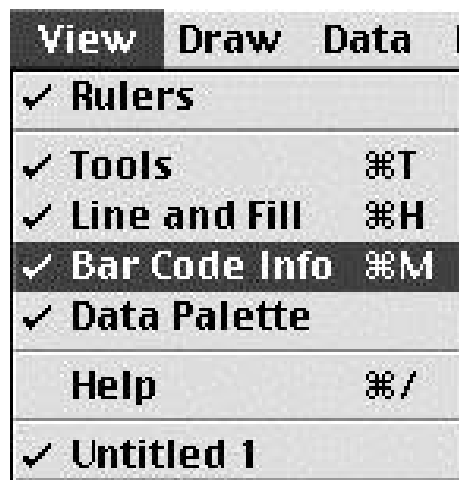


Figure 5-7 View Menu - Bar Code Info Command

If the Bar Code Info window is open, a check mark appears before **Bar Code Info** in the **View** menu. In that case, choosing **Bar Code Info** or entering **M** closes the Bar Code Info window.

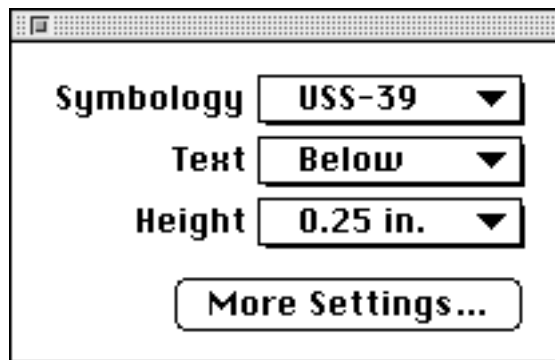


Figure 5-8 Bar Code Info Window

Wasp Bar Code Builder offers several options for changing the way the bar code is sized and printed. The best bar code setup for you may be determined by several factors:

- The number and type of characters you want to convert to a bar code.
- The size of your labels.
- The ratio of the wide bars vs. the narrow bars and whether your labels are to be laminated.
- Other graphics and text you want to fit onto your labels.

Pages 60–77 further define the settings available in the Bar Code Info window.

Bar Code Symbolologies

The symbology that you select determines if Wasp Bar Code Builder can convert your entry in the bar code object edit areas into a valid bar code. *Note: If the symbology does not support your entry, a bar code will not be generated.*

To select a symbology, open the **Symbology** pop-up menu in the Bar Code Info window. See Figure 5-9. A check mark appears before the selected symbology. To change the symbology, choose another symbology and the check mark will appear before your new choice.

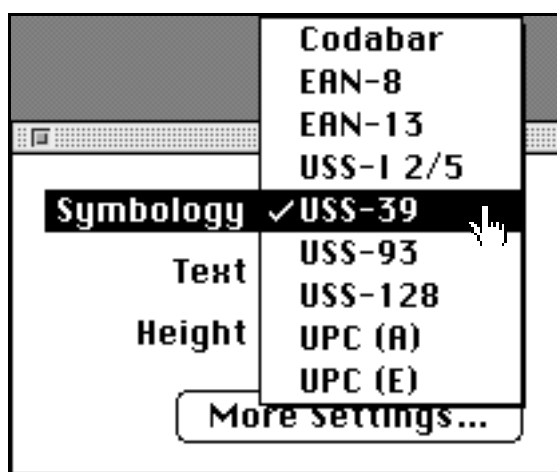


Figure 5-9 Bar Code Specs Window - Symbology Pop-Up Menu

Wasp Bar Code Builder offers the capability to print several different symbologies. Table 5-1 on the following page briefly describes each of the symbologies supported.

Bar Code Symbology	Uses	Description
USS-39 Code 3 of 9	Auto parts, labels for sorting, Dept. of Defense, purchasing, supply control	The most popular industrial and government bar code system. Reliable. This variable length bar code may contain both numeric and uppercase alpha codes.
USS-93 Code 93	Same as 3 of 9	An enhancement of Code 3 of 9. Supports the full 128 character ASCII character set, including uppercase and lowercase alpha. Lowercase alpha characters are shifted, creating a wider bar code.
USS-128 Code 128	Shipping, medical sampling	Another enhancement of Code 3 of 9. Supports all uppercase and lowercase characters, all ASCII control characters, and all numeric entries.
USS-I 2/5 Interleaved 2 of 5	Industry, auto parts, cartons of food, labels for sorting, supply control	A popular industrial bar code system. This is a numeric code that requires an even number of digits to make a legal code. This symbology produces the narrowest possible bar code for the number of characters coded.
UPC (E - A) Universal Product Code	Retail products including grocery, drug, and medical goods	Universal Product Code: Retail market code system. The information contained is the product type, manufacturer, item, and checksum. Fixed length, numeric only.
EAN (8 or 13) European Article Number	The European equivalent to UPC	European retail code system. Fixed length, numeric only.
Codabar	Medical sample control, photo processing, libraries	Used for Red Cross blood banking. This is a variable length bar code.

Table 5-1 Bar Code Symbologies

Symbology Edit Areas

Wasp Bar Code Builder provides three edit areas for entering text into the bar code object editor. Table 5-2 describes the data entry requirements for each of the symbologies.

Bar Code Symbology	Data Entry Requirement for Edit Areas
USS-39 Code 3 of 9	Any of these 44 characters may be entered: 0123456789ABCDEFGHIJKLMNOPQRSTUVWXYZ-.*\$/% and a space. Wasp Bar Code Builder automatically converts lowercase alpha characters to uppercase.
USS-93 Code 93	Any number of characters may be entered. Each field supports the full 128 ASCII character set.
USS-128 Code 128	Any number of characters may be entered. Each field supports all uppercase and lowercase characters, all ASCII control characters, and all numeric entries. Wasp Bar Code Builder automatically encodes numeric pairs to increase bar code density for numeric data.
USS-I 2/5 Interleaved 2 of 5	Any number of numeric digits may be entered. If Wasp Bar Code Builder encounters an odd number of digits, it automatically adds a '0' for the leading character to encode an even number of digits.
UPC (A or E)Universal Product Code	<p>When you enter 11 numeric digits into any combination of the three edit areas, Wasp Bar Code Builder automatically calculates a check digit and creates a UPC-A bar code. You may then enter 2 or 5 additional numbers to create a UPC supplemental bar code.</p> <p>To create a UPC-E code, Wasp Bar Code Builder uses any combination of the three edit areas to convert an 11 digit numeric UPC-A bar code that begins with a zero (0) and contains embedded zeros into a 6 digit compressed bar code. You may then enter either 2 or 5 additional numbers to create a UPC supplemental bar code.</p>

Bar Code Symbology	Data Entry Requirement for Edit Areas
EAN (8 or 13) European Article Number	<p>For EAN-8 bar codes, enter a total of 7 numeric digits into any combination of the three edit areas. Wasp Bar Code Builder automatically calculates a check digit and creates a bar code object.</p> <p>For EAN-13 bar codes, enter a total of 12 numeric digits into any combination of the three edit areas. Wasp Bar Code Builder automatically calculates a check digit and creates a bar code object.</p> <p>For each EAN symbology you may then enter either 2 or 5 additional numbers to create an EAN supplemental bar code.</p>
Codabar	<p>All Codabar bar codes must begin and end with A, B, C, or D. Unless you specify otherwise, Wasp Bar Code Builder automatically enters 'A' as the start and stop character of the Codabar bar code. All of the following characters are supported by the Codabar symbology and may be entered in any combination in the edit areas: 0123456789-\$/./+.</p>

Table 5-2 Bar Code Object Edit Areas

Bar Code Display Options

After you have entered the text for your bar code, select the arrow tool from the tool palette. The bar code object will appear in the work area without the edit areas. Figure 5-10 shows an example USS-39 symbology bar code displayed without its edit areas.

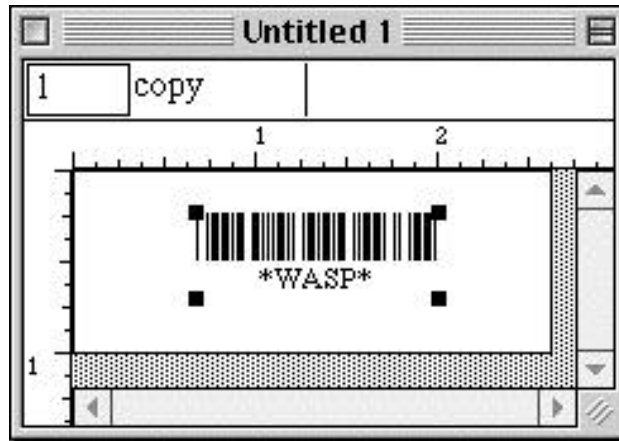


Figure 5-10 USS-39 Bar Code Object Without the Edit Areas

Notice that in Figure 5-10 the bar code object displays the text that the bar code represents as well as the bar code itself. The text display is controlled by the **Text** setting in the Bar Code Info window. See Figure 5-11.

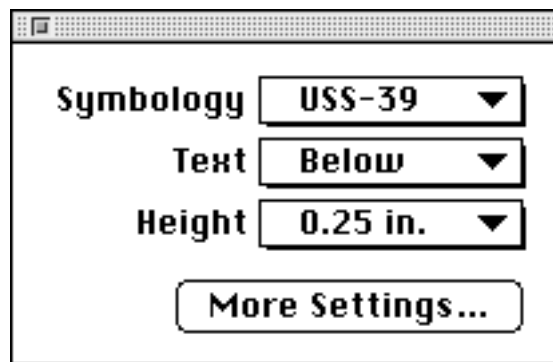


Figure 5-11 Bar Code Info Window

Setting Text Location

You may use the **Text** pop-up menu to choose how to display the human-readable text component of your bar code. You may choose to display the bar code text above or below the bar code, or to hide the text altogether.

Open the **Text** pop-up menu in the Bar Code Info window. The text location choices appear. See Figure 5-12.

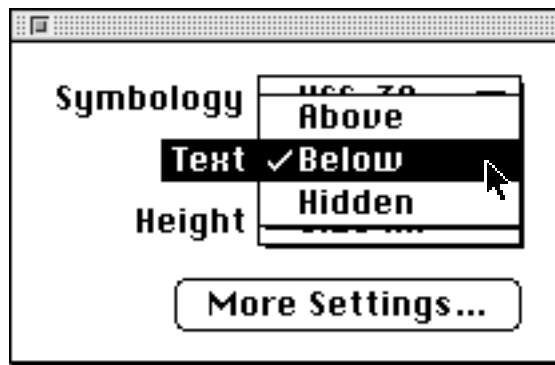


Figure 5-12 Bar Code Info Window - Text Pop-Up Menu

Figures 5-13, 5-14, and 5-15 show how the bar code will appear with the different text options. See pages 78–81 for information on changing the text font, style, or justification.



Figure 5-13
Bar Code Object Text Below



Figure 5-14
Bar Code Object Text Above



Figure 5-15
Bar Code Object Text Hidden

Displaying Extra Text

Wasp Bar Code Builder supports supplemental characters for UPC and EAN symbology bar codes. It automatically adds the supplement when it encounters the correct number and combination of numeric digits in the edit areas.

You may choose to display the extra bar code text above or below the bar code. Or, you may choose to hide it altogether. To control the display, click **More Settings** to expand the Bar Code Info window. See Figure 5-16.

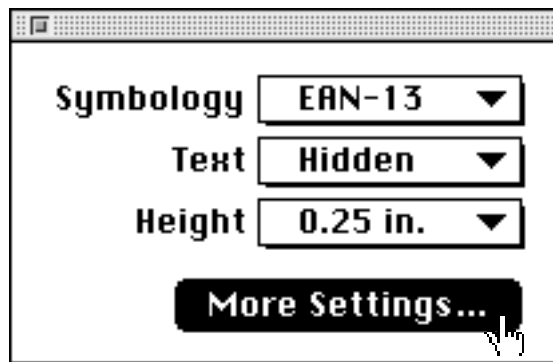


Figure 5-16 Bar Code Info Window - More Settings

Open the **Supplement** pop-up menu to view its options. See Figure 5-17.

Note: The **Supplement** pop-up menu only affects UPC or EAN symbology bar codes.

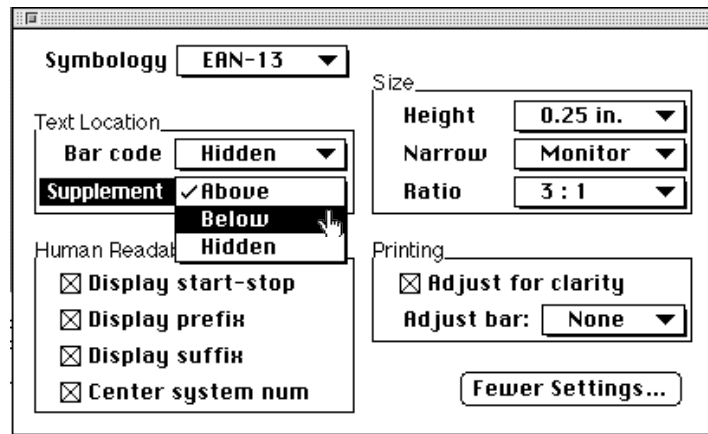


Figure 5-17 Bar Code Info Window - Supplement Pop-Up Menu



Figure 5-18 Bar Code Object with Supplement Text Below



Figure 5-19 Bar Code Object with Supplement Text Above



Figure 5-20 Bar Code Object with Supplement Text Hidden

Bar Code Sizing Options

Use the **Size** pop-up menus in the expanded Bar Code Info window to control the size of your bar codes. The bar code symbol sizes may be expressed in inches, points, centimeters, or millimeters depending on your selection in the Preferences window. See Figure 4-20 on page 44.

Figure 5-21 shows the expanded Bar Code Info window. To expand the window, click **More Settings** . See Figure 5-16 on page 62.

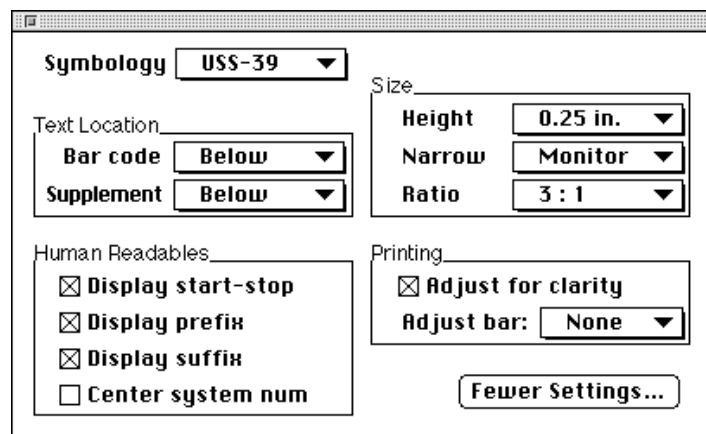


Figure 5-21 Bar Code Info Window

There are three pop-up menus under **Size**: **Height** , **Narrow** , and **Ratio** .

Bar Code Heights

Use the **Height** pop-up menu in the Bar Code Info window to control the height of the bar codes. Open the **Height** pop-up menu to view your choices. See Figure 5-22.

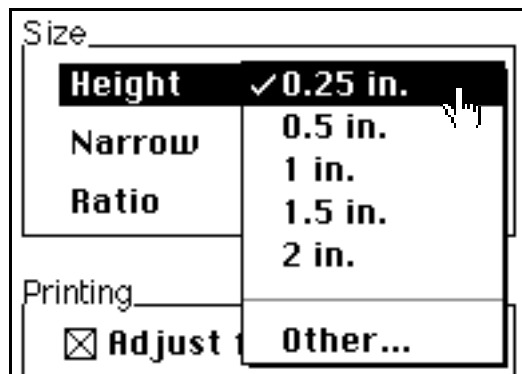


Figure 5-22 Bar Code Info Window - Height Pop-Up Menu

If you don't want to use the pre-defined choices, choose **Other** from the list. See Figure 5-23.

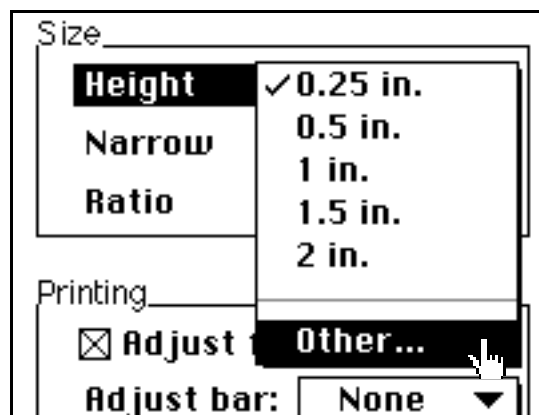


Figure 5-23 Bar Code Info Window - Height Pop-Up Menu - Other

When you choose **Other** from the Height pop-up menu list, a dialog box appears. See Figure 5-24.

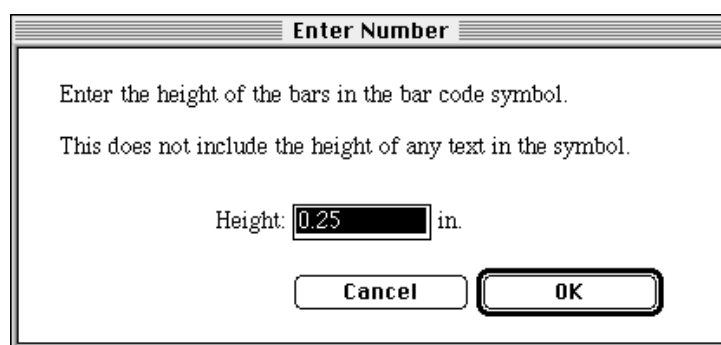


Figure 5-24 Height - Other - Dialog Box

Now you may enter the desired height for the bar code. Note: The height you enter only applies to the bar code itself, not the accompanying text.

Narrow Bar Width

The width of the narrowest bar of a bar code is called the X-dimension. By specifying the width of the narrow bar, you control the overall width of the bar code that Wasp Bar Code Builder creates. The X-dimension may be printed as narrow as 1 printer pixel, or .0067 inches in the case of 600 dots per inch laser printers. The width of the printer pixel will vary with the printer you use. For example, a 600 dots-per-inch laser printer will be capable of printing a narrow bar width of approximately .0067 inches (6.7 mil) whereas a 300 dots-per-inch printer can typically print a minimum of .0100 inches (10 mil) X-dimension. If an X-dimension translates to a fractional number of printer pixels, Wasp Bar Code Builder automatically adjusts the narrow bar widths to the nearest even number of printer pixels.

Use the **Narrow** pop-up menu in the expanded Bar Code Info window to define the width, in inches, of the X-dimension of your bar code. Your selection will affect the overall width of the bar code. See Figure 5-25.

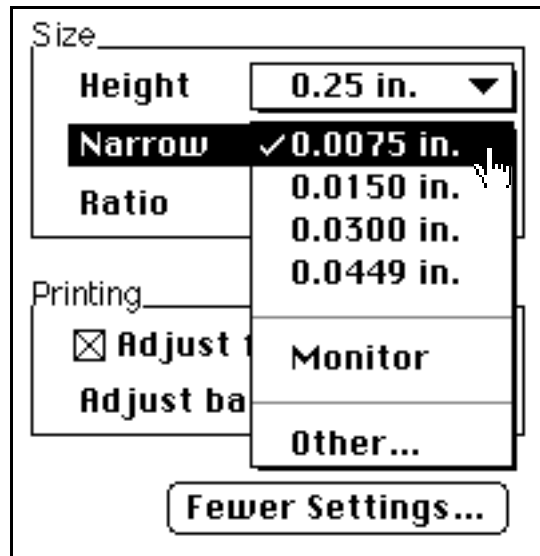


Figure 5-25 Bar Code Info Window - Size Narrow Pop-Up Menu

Open the **Narrow** pop-up menu to view your choices. Wasp Bar Code Builder presents a list of pre-defined choices. The **Monitor** selection causes Wasp Bar Code Builder to calculate a narrow width that matches the screen resolution. This selection allows you to see the bars and spaces on your screen as they will appear in the printed bar code. The **Monitor** option will calculate an X-dimension of approximately 10 mils (.0104 inches). The **Monitor** option is the required setting if you are going to copy/paste your created bar code into Adobe Illustrator 8.0 or above to save the bar code as an EPS file.

If you don't want to use the pre-defined choices, choose **Other** from the **Narrow** pop-up menu. See Figure 5-26.

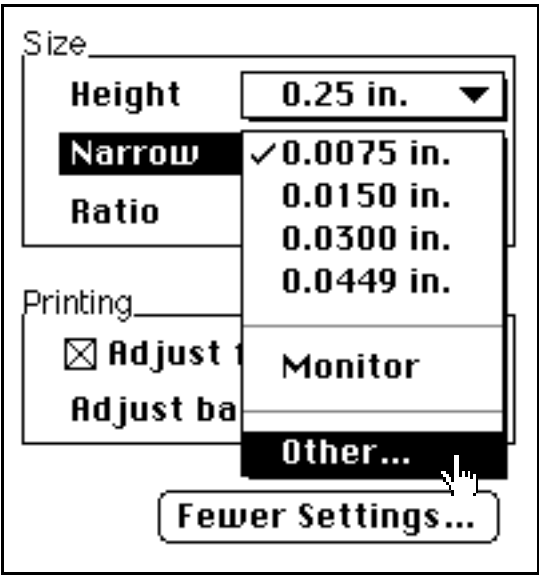


Figure 5-26 Bar Code Info Window - Narrow Pop-Up Menu - Other

When you choose **Other** from the **Narrow** pop-up menu, a dialog box appears. See Figure 5-27.

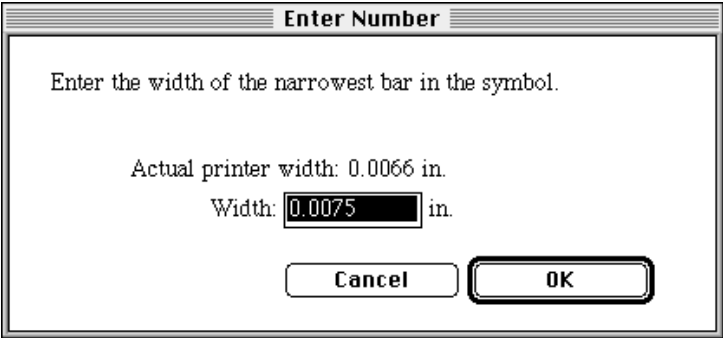


Figure 5-27 Narrow - Other Dialog Box

You may enter the desired width for the narrow bars of the bar code. The units of measure are determined by your selection in the **Preferences** window, Units of Measure. See Figure 4-20 on page 44.

Depending on what you enter, Wasp Bar Code Builder may adjust your entry to the nearest possible value based on the resolution of the printer you have selected. For example, a 600 dots per inch resolution printer is not capable of printing a bar exactly .0075 inches wide because this would result in fractional printer pixel width. When you enter a value in the **Width** field, Wasp Bar Code Builder calculates the actual width and displays it in the **Narrow - Other** dialog box.

If you enter a value outside of the normal range of adjustment, Wasp Bar Code Builder will adjust the figure that you have entered and display a warning. See Figure 5-28.

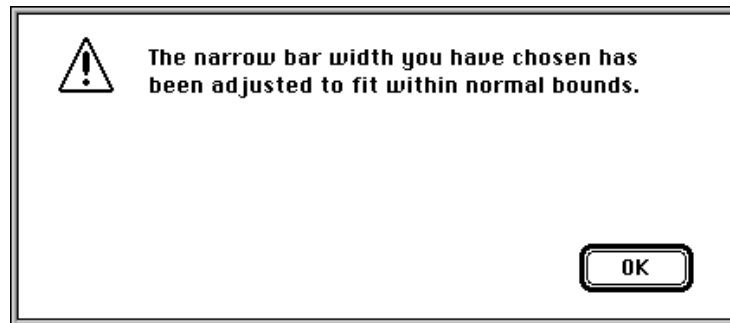


Figure 5-28 Narrow Dialog Box - Other Selection Adjustment Warning

Bar Code Ratios

If your bar codes are USS-39, USS-I 2/5, or Codabar symbology, you may adjust the ratio of the wide bars to the narrow bars (X-dimension). Increasing this ratio can help to produce more readable bar codes. The range of adjustment is 2:1 to 3:1.

Use the **Ratio** pop-up menu in the Bar Code Info window to choose a ratio for the bar code. See Figure 5-29.

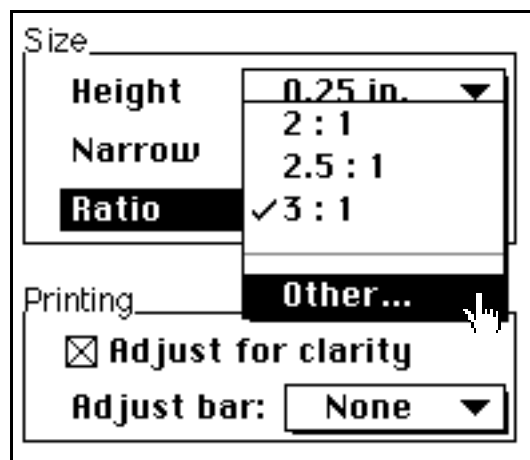


Figure 5-29 Bar Code Info Window - Ratio Pop-Up Menu

When you choose **Other** from the **Ratio** pop-up menu, a dialog box appears. See Figure 5-30.

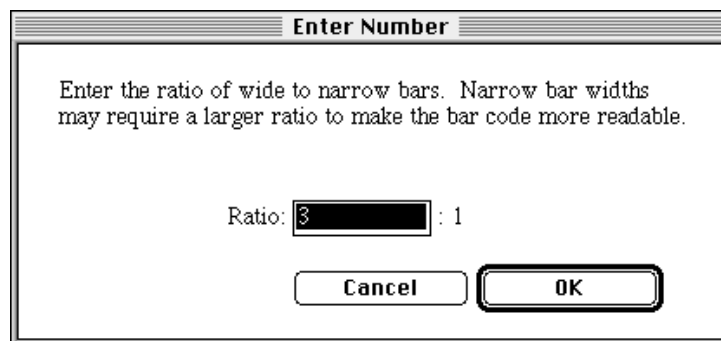


Figure 5-30 Bar Code Info Window - Ratio Dialog Box

Use the **Ratio** dialog box to enter a value from 2 to 3. Wasp Bar Code Builder automatically adjusts your entry to the nearest printable ratio in the valid range. If Wasp Bar Code Builder must make an adjustment to your entry it will display a warning. See Figure 5-31.

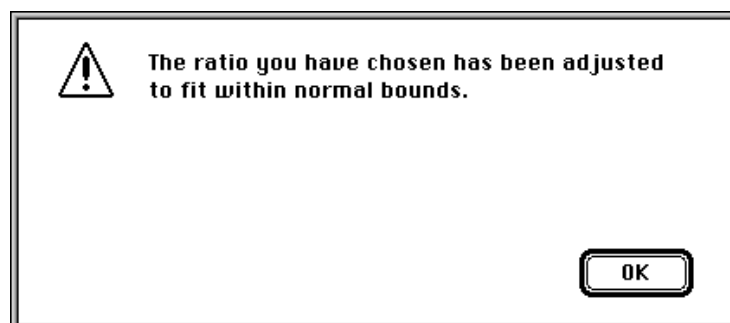


Figure 5-31 Ratio Adjustment Warning

Prefixes and Suffixes

Each symbology selected provides three edit areas for entering text for your bar codes. (See Table 5-2 on pages 58–59.) Prefixes and suffixes are normally associated with Codabar, USS-39, USS-93, and USS-128 symbologies. The separate edit areas are an ideal way to enter prefixes and suffixes. (See Figure 5-32 for an illustration of the bar code object edit areas.)

For the Codabar symbology, you must have A, B, C, or D at both the beginning and end of your Codabar symbology bar code in order to create a valid bar code. These characters are called the start and stop characters. Wasp Bar Code Builder automatically adds the 'A' character to the beginning and end of each Codabar symbology bar code. If you want to change the Codabar start character, enter a B, C, or D at the beginning of the bar code data. If you want to change the Codabar stop character, enter a B, C, or D at the end of the bar code data.

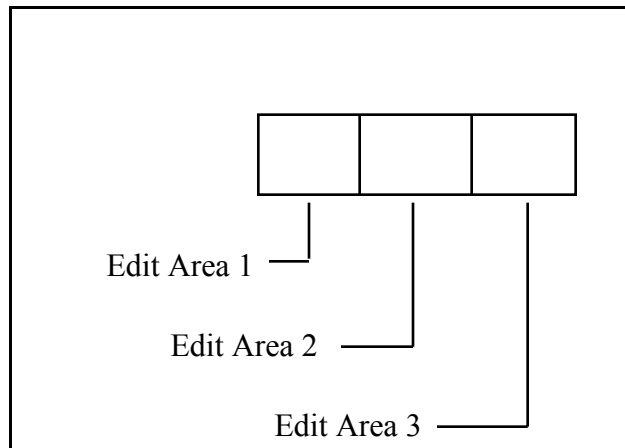


Figure 5-32 Bar Code Object Edit Areas for USS-39, USS-93, and USS-128 Symbolologies

When you create a bar code object, the primary edit area is edit area 2. This means that the cursor will initially appear in edit area 2. However, you may enter bar code data in any of the three edit areas. You must deliberately click on the first or third edit areas or move the cursor to them with the tab key to enter data into them. Wasp Bar Code Builder automatically creates a bar code from a combination of valid data in all three edit areas.

Edit area 1 can be used for entering a prefix to your bar code data. Let's assume you want to perform an inventory of computer equipment in your facility by serial number. You will use USS-39 symbology. You want to keep track of the equipment by room number. To identify your data, you decide to precede all bar codes that represent room numbers with 'R', computers with 'C', monitors with 'M', and printers with 'P'. You enter your serial numbers into edit area 2 and your prefix letters into edit area 1.

Edit area 3 can be used for entering a suffix. This adds additional flexibility for matching your requirements to your bar code data.

Controlling the Display of Readable Text

Displaying Prefix and Suffix Characters

You may toggle the display of the prefix and suffix text for bar code objects by toggling the human readable text of the first and third edit areas. To do so, click on the box to the left of **Display prefix** or **Display suffix** in the **Human Readables** area of the expanded Bar Code Info window. See Figure 5-33.

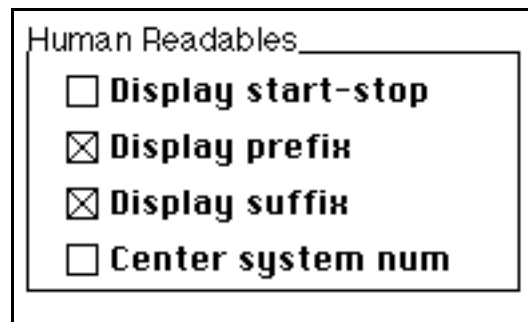


Figure 5-33 Bar Code Info Window - Human Readables

Figures 5-34, 5-35, 5-36, and 5-37 show examples of the different prefix and suffix toggles. In each case the following data was entered into each of the edit areas:

Edit Area 1	R
Edit Area 2	00255
Edit Area 3	-1



R00255-1

Figure 5-34
Bar Code Text with
Prefix and Suffix



R00255

Figure 5-35
Bar Code Text with
Prefix Only



00255-1

Figure 5-36
Bar Code Text with
Suffix only



00255

Figure 5-37
Bar Code Text only

Toggling Stop and Start Characters for USS-39 and Codabar

The Codabar symbology requires the single characters A, B, C, or D at the beginning and end of the bar code. These characters are called start and stop characters. Codabar bar codes may not be created without them.

The USS-39 symbology uses an asterisk character (*) to indicate the start and the stop of the bar code. Wasp Bar Code Builder automatically creates the start-stop characters for this symbology and embeds them when you create your bar code.

For Codabar and USS-39 symbologies you may toggle the text display of the start-stop characters by clicking the **Display start-stop** check box in the Human Readables area of the Bar Code Info window. See Figure 5-38.

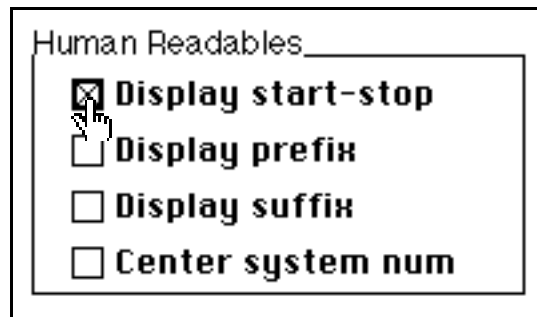


Figure 5-38 Bar Code Info Window - Display Start-Stop

Figures 5-39 and 5-40 are examples of toggling the start-stop display for a USS-39 bar code.



Figure 5-39
USS-39 Bar Code with
Start-Stop Toggled On



Figure 5-40
USS-39 Bar Code with
Start-Stop Toggled Off

Positioning UPC and EAN System Numbers

UPC bar codes normally include a human readable component. A single text character is positioned along each outside edge. These characters are the system numbers. For the UPC symbology, the left hand system number is a manufacturing group. The second system number is a check digit. See Figure 5-41.

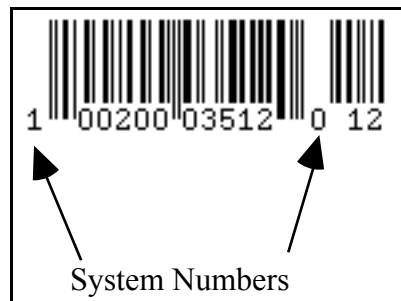


Figure 5-41 UPC-A Bar Code System Numbers

EAN-13 bar code system numbers are normally positioned along the left edge of the bar code. See Figure 5-42.

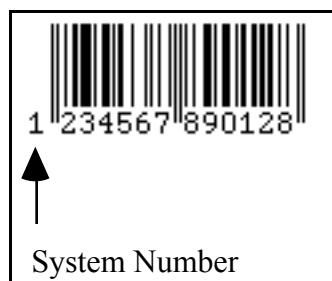


Figure 5-42 EAN-13 Bar Code System Number

You may toggle the position of these system numbers by clicking on the box to the left of **Center system num** in the Human Readables area of the Bar Code Info window. See Figure 5-43.

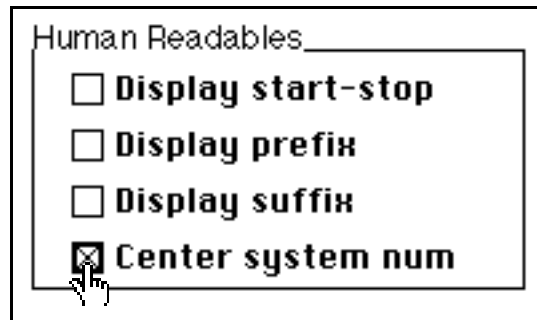


Figure 5-43 Bar Code Info Window - Center System Number Check Box

When you select **Center system num**, the system number(s) move to the center of the bar code edges. See Figures 5-44, 5-45, and 5-46.

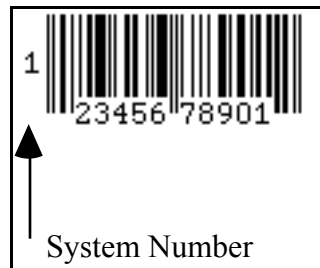


Figure 5-44
Centered System Numbers
for UPC-A Bar Code



Figure 5-45
Centered System Numbers
for UPC-E Bar Code

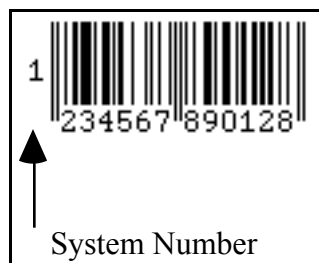


Figure 5-46
Centered System Number
for EAN-13 Bar Code

How to Size and Style Bar Code Text

Wasp Bar Code Builder allows you to apply different styles to the text in your bar code object. Commands for font, style, and justification found in many Macintosh word processing and text editing programs are also supported by Wasp Bar Code Builder.

Follow these steps to assign a size and style to the text in your bar codes:

1. Select the bar code tool from the tool palette and click on a location in the work area. (See pages 51–52.)
2. Choose **Font** from the **Draw** menu. See Figure 5-47. A window similar to Figure 5-48 appears.



Figure 5-47 Draw Menu

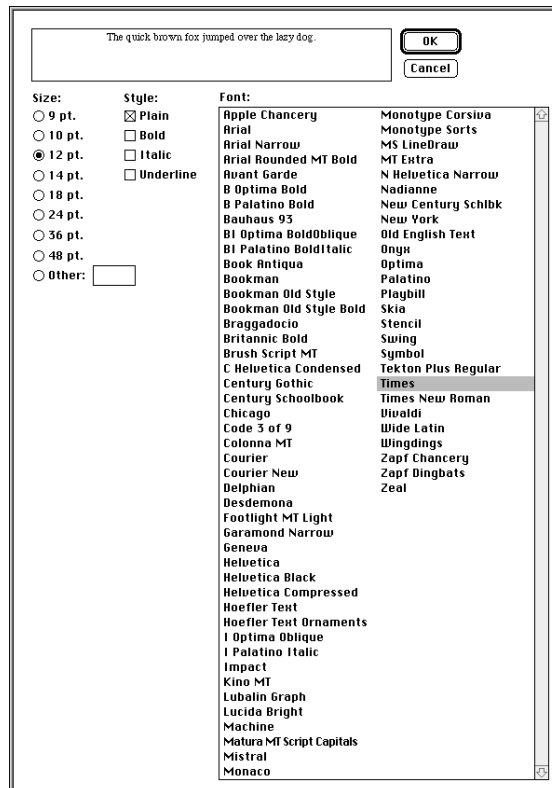




Figure 5-48 Font Window

Use this window to adjust the size, style, and font of the text objects you have selected. Settings in this window will also affect the human readable (text) portion of bar code objects except for the embedded text in UPC and EAN symbology bar codes. (See pages 64–69.)

A variety of short cut keystrokes are available at the Font window. Pressing the arrow keys will navigate through the font selections. Pressing **Home** selects the first font in the list, pressing **End** selects the last font in the list. Pressing **Page Up** selects the first font in the current column, pressing **Page Down** selects the last font in the current column. Pressing **B** toggles Bold text, pressing **I** toggles italic text, pressing **U** toggles underline text, pressing **P** selects plain text. Pressing  or  selects a larger or smaller font size.

Changing a setting in this window affects the text in both currently selected objects and subsequent objects that you create.

3. To change text justification, choose **Left Justify** , **Center Justify** , or **Right Justify** from the **Draw** menu. See Figure 5-49. A check mark appears before the selected command.



Figure 5-49 Draw Menu - Justification Selections

Sizing and Styling Examples

Each edit area can have a different font, style, and size. Figures 5-50 and 5-51 are examples of bar codes in which the size and style of the text have been modified in some way.



Figure 5-50 USS-39 Symbology Bar Code Object

Edit area 1 is Times New Roman font, 9 points, plain text.
Edit area 2 is Helvetica font, 12 points, underline.
Edit area 3 is Arial font, 9 points, italic.

When the bar code in Figure 5-50 is printed it will look like Figure 5-51.



Figure 5-51 USS-39 Symbology Bar Code with Settings from Figure 5-50

Notes:

Chapter 6

Working With Text and Graphics

This chapter describes how to create, edit, and manipulate objects. It presents the following topics:

- Creating a text object
- Creating square and rectangle objects
- Selecting line and fill patterns
- Grouping objects
- Moving, rotating, and duplicating objects
- Layering objects
- Aligning objects in the label
- Cutting and pasting from other applications

Working With Text and Graphics

Text and graphics editing in Wasp Bar Code Builder is similar to other Macintosh drawing programs. Like bar codes, text and graphics may be created by clicking on the appropriate tool from the tool palette, then clicking on the desired location in the work area. *(See pages 50–51 for information on displaying the tool palette.)*

The resulting “object” may then be further edited, moved, resized, or rotated using additional commands in Wasp Bar Code Builder. Objects may also be pasted from other programs using the Clipboard and edited using Wasp Bar Code Builder’s tools and commands. Likewise, objects may be copied in Wasp Bar Code Builder and pasted into other programs.

Remember!

You may choose **Undo** from the **Edit** menu or type **Z** to reverse or undo several of your last manipulations.

Creating a Text Object

To enter new text in the work area, click on the text tool in the tool palette and move the pointer to the work area. Click on the location in the work area where you want the text to begin. Don't worry if it's not in the right location, you can easily move it later. (See the section on *Selecting and Moving Objects* beginning on page 90.) When you click, a text edit area with a cursor appears. See Figure 6-1.

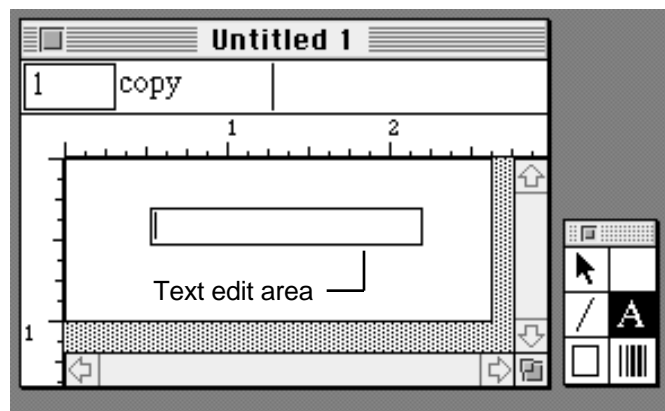


Figure 6-1 Text Edit Area

To enter text, type it in. Use the **Draw** menu commands described in Chapter 5 to alter size, style, justification, or font. Figure 6-2 is an example of text entered using the text tool.

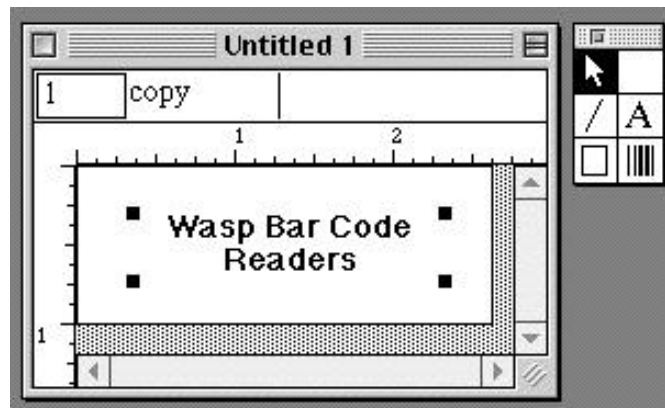


Figure 6-2 Text Entered Using the Text Tool

To edit text that you have already typed in, first make sure the text tool is selected. Then use the I-beam cursor to select the text that you want to edit and type in your changes.

Creating Squares and Rectangles

To create a square or rectangle, click on the rectangle tool in the tool palette and move the pointer to the work area. See Figure 6-3. The pointer will become one of the corners of the rectangle or square.

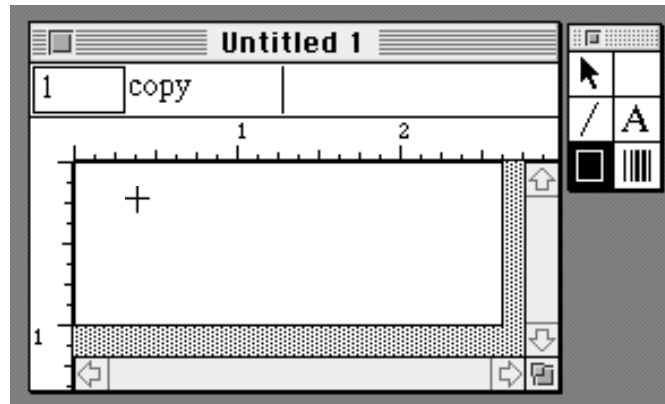


Figure 6-3 Selecting the Rectangle Tool from the Tool Palette and Positioning the Pointer in the Work Area

To create the shape, hold the mouse button down and drag out a rectangle. Release the mouse button when you have created the shape you want. See Figure 6-4.

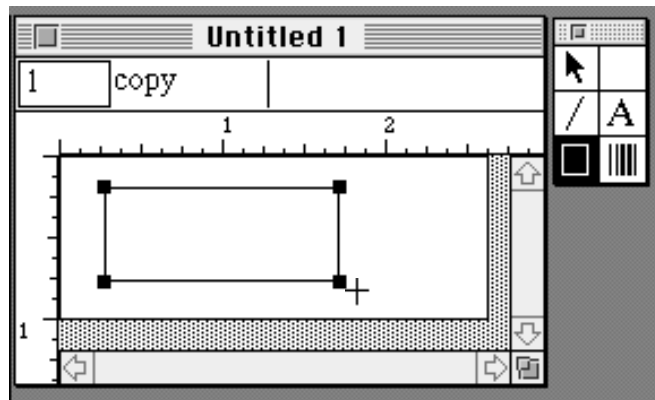


Figure 6-4 A Newly Created Rectangle

To create a square, hold down the shift key while you drag out the rectangle. Wasp Bar Code Builder will automatically create a square.

Selecting Line and Fill Patterns

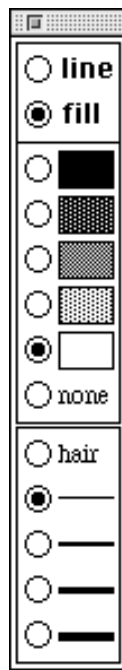


Figure 6-5 Line and Fill Palette

Wasp Bar Code Builder offers a palette for selecting line and fill patterns. When you choose a pattern, it directs Wasp Bar Code Builder to use the selection both for new and currently selected borders, lines, and fill patterns.

To view the choices for line and fill patterns, choose **Line and Fill** from the **View** menu. See Figure 6-6.



Figure 6-6 Draw Menu - Line and Fill Palette

A check mark in front of the menu choice means that the window in Figure 6-5 is displayed. If there is no check mark, the window is not displayed. Choosing the menu choice toggles the check mark, and displays or closes the window. The current line or fill pattern is indicated by the radio button selection. Selecting a different line or fill pattern changes the outline of all selected rectangles and becomes the pattern for new lines and rectangles created. *(See page 91 for more information about selecting objects with the arrow tool.)*

Creating Lines

To create a line, click on the line tool in the tool palette and move the pointer to the work area. See Figure 6-7.

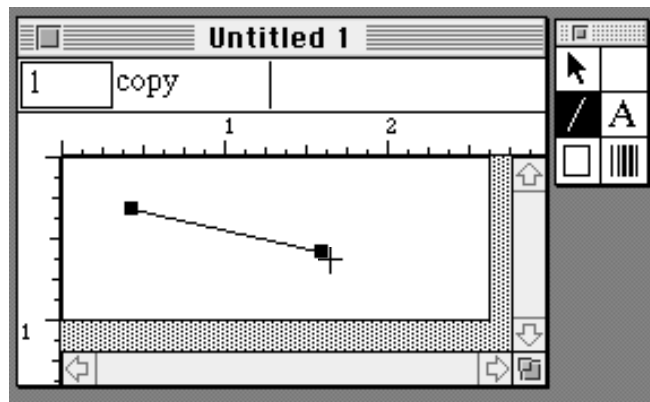


Figure 6-7 Line Selected in the Work Area

The pointer will be one end of the line. Press and hold down the mouse button to begin drawing the line. To force draw a straight line either vertically or horizontally, hold down the shift key before drawing the line.

Selecting and Moving Objects

Wasp Bar Code Builder can create or edit four types of objects:

- Bar Code objects
- Text objects
- Rectangle objects
- Line objects

In addition, you may paste and resize a graphic from the Clipboard.

Selecting Objects

Assume that you have several objects in the work area that you have created at different times and you want to modify one of them. To do so you must select it first. To select an object, first click on the arrow tool from the tool palette and then click on the object that you want to change. Figures 6-8 and 6-9 illustrate a bar code object before and after selecting it.

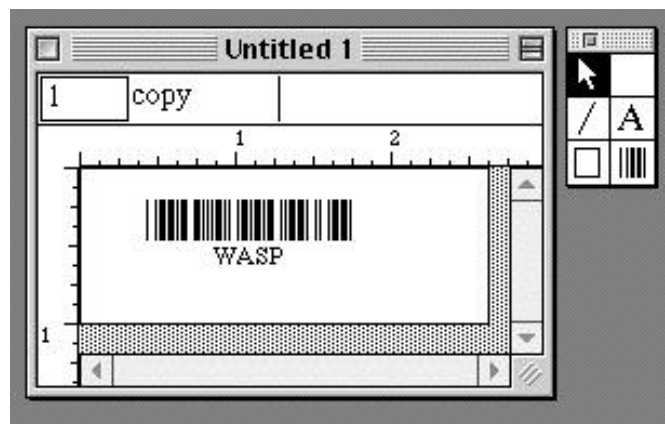


Figure 6-8 Bar Code Object Before Selecting With the Arrow Tool

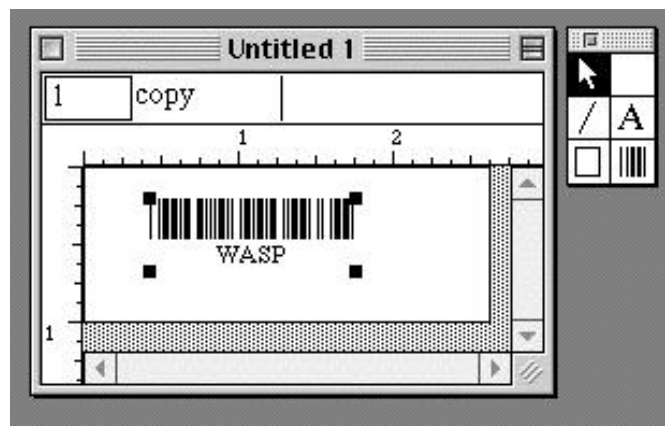


Figure 6-9 Bar Code Object After Selecting With the Arrow Tool

Selecting Multiple Objects

There may be a time when you want to move, copy, or perform some other operation on several objects simultaneously. You may do this if the objects are all selected.

To select multiple objects, hold down the shift key while you select the objects, or use the arrow tool to drag a box around the objects that you want to select.

Figure 6-10 shows an example of two out of three different object types selected at the same time.

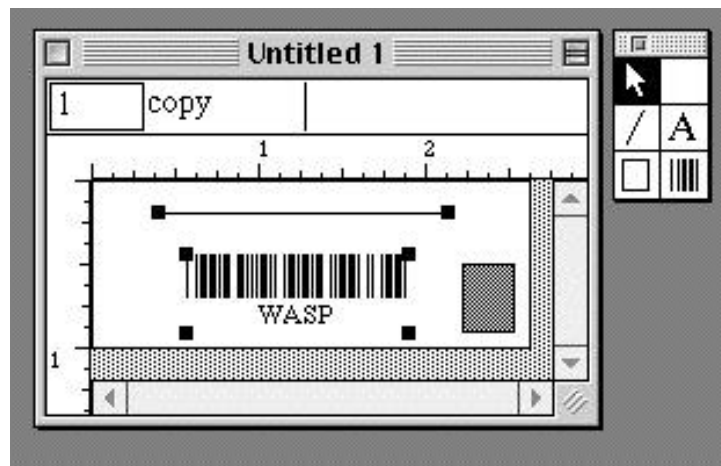


Figure 6-10 Bar Code Object and Line Object Selected

To deselect a selected object, hold down the shift key and click on the object again.

Selecting All of the Objects in the Work Area

If you want to select all of the objects in the work area, you may choose **Select All** from the **Edit** menu or type **A** from the computer keyboard.

Grouping Objects

Sometimes it is useful to combine two or more objects into one. This is called “grouping.” After objects have been grouped, they are treated as a single object.

To group the objects you have selected, choose **Group** from the **Draw** menu or press **G**. See Figure 6-11. Figures 6-12 and 6-13 show examples of objects before and after grouping.



Figure 6-11 Draw Menu - Group Command

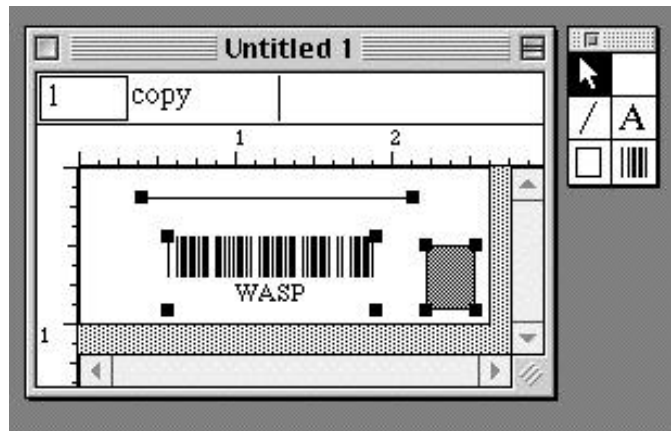


Figure 6-12 Selected Objects Before Grouping

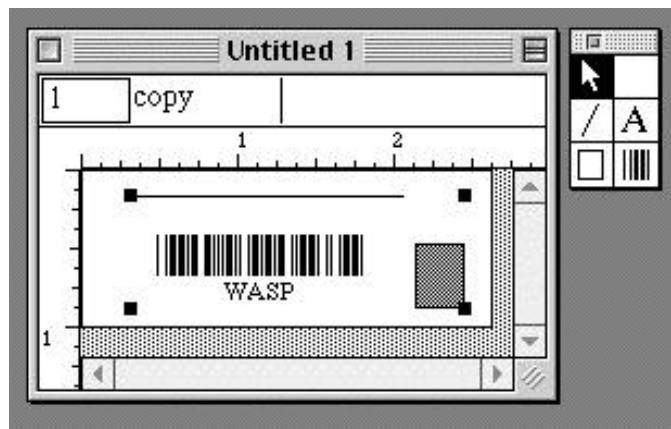


Figure 6-13 Selected Objects After Grouping

You may “ungroup” the grouped objects by selecting the grouped object and then choosing **Ungroup** from the **Draw** menu or typing **U**.

Moving Objects

You may move a selected object anywhere in the work area. (See the previous sections in this chapter about selecting objects.)

To move a selected object, click on it with the arrow tool and drag it to a new location in the work area. You may select multiple objects for moving by shift-clicking on each object.

To restrain movement to strictly vertical or horizontal, press and hold the shift key before dragging the object you want to move.

You may also use the arrow keys to “nudge” the selected object(s) when you only want to move them a little bit.

Duplicating Objects

You may duplicate a selected object by choosing **Duplicate** from the **Edit** menu or by pressing **D**. Wasp Bar Code Builder creates a copy of the object and places it near the original.

The new object will be selected and the original object will be de-selected. Use the arrow tool to position the new object in the work area.

Deleting Objects

Choose **Clear** from the **Edit** menu or press the delete key to delete a selected object.

Remember!

Choose **Undo** from the **Edit** menu or press **Z** to reverse or undo your most recent object editing or manipulation.

Rotating Objects

The **Draw** menu's **Rotate Left** and **Rotate Right** commands allow you to rotate a selected object 90°. See Figure 6-14.



Figure 6-14 Draw Menu

Figures 6-15 through 6-19 illustrate examples of these commands on selected objects.

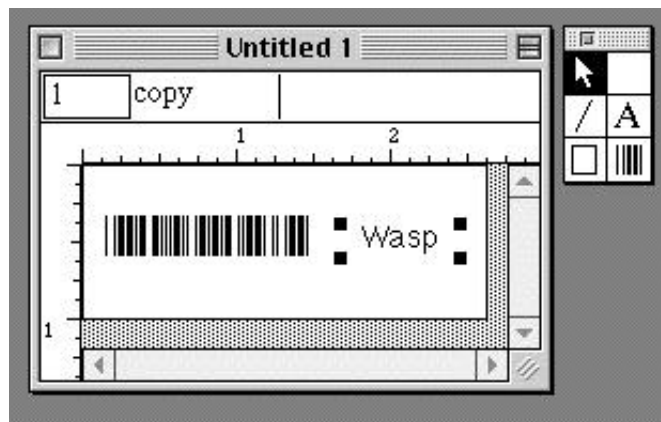


Figure 6-15 Selected Text Object Before Rotation

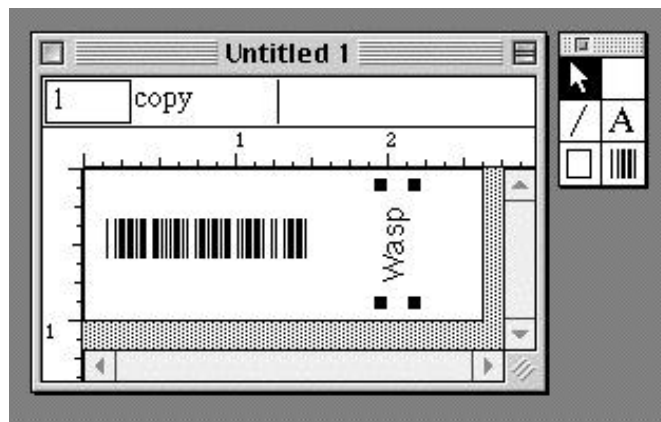


Figure 6-16 Selected Object Rotated Left

Note: The text in a text object cannot be edited if it has been rotated. You must return the object to its original position to edit the text.

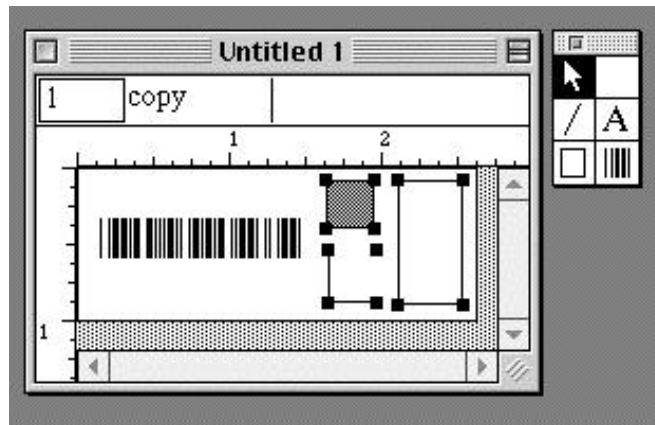


Figure 6-17 Selected Graphic Objects Before Grouping

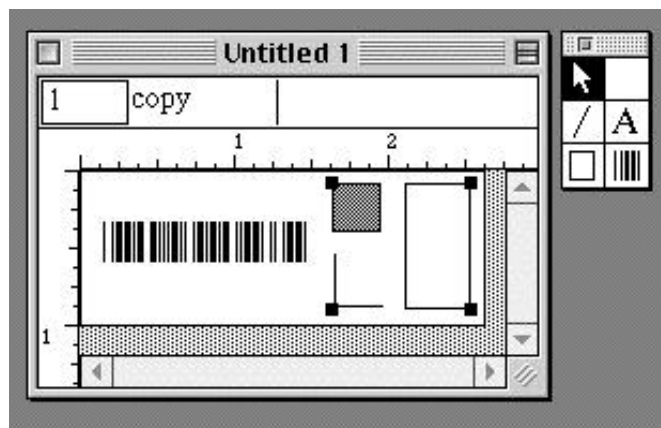


Figure 6-18 Selected Objects - Grouped

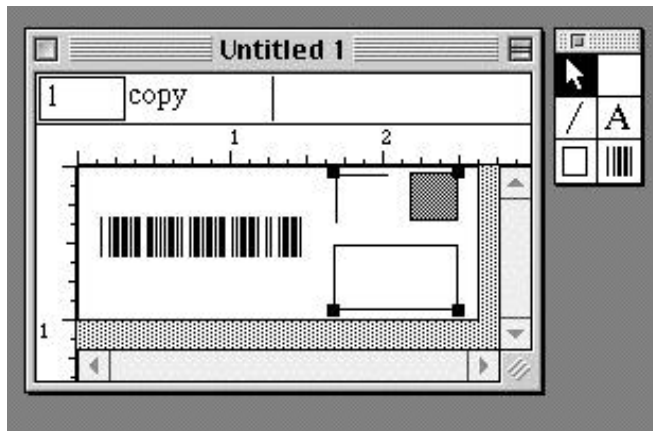


Figure 6-19 Grouped Object - Rotated Right

Object Layers

When two or more objects overlap within the work area, they are placed in an order or layer in the label document. When you create a new object, Wasp Bar Code Builder places it in front of the other objects. Figures 6-20 and 6-22 are illustrations of object layering.

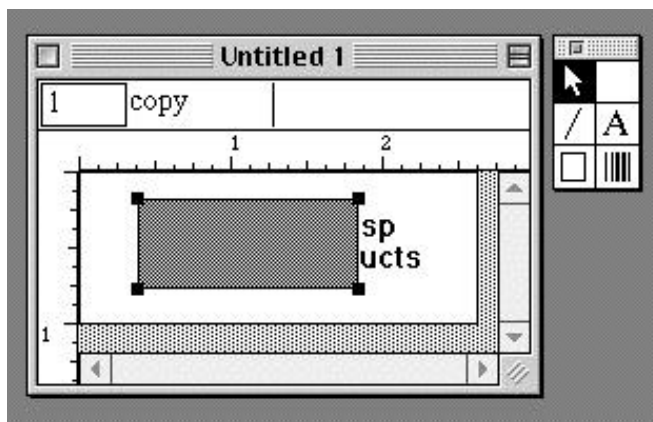


Figure 6-20 Text Object is Behind the Rectangle Object

In Figure 6-20, the text object, “Informatics Products” is behind the filled rectangle. To send the rectangle back, follow these steps:

1. Use the arrow tool to select the rectangle object.
2. Choose **Send Back** from the **Draw** menu or press **⌘ -**. See Figure 6-21.



Figure 6-21 Draw Menu - Send Back

The result of this command sends the selected rectangle back one layer as illustrated in Figure 6-22.

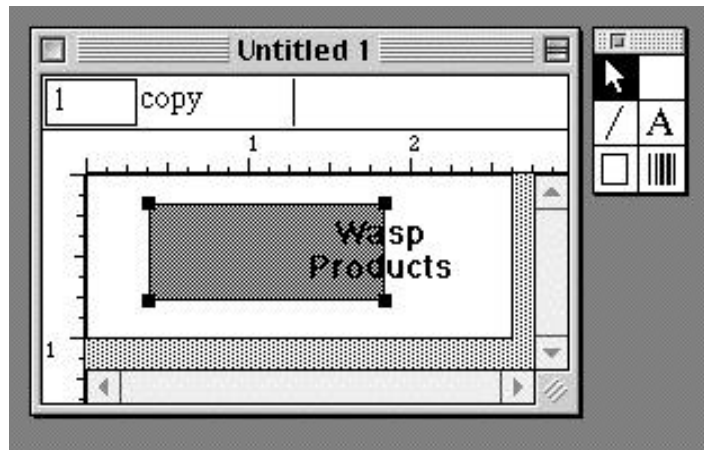




Figure 6-22 Rectangle Object Sent Back

The counterpart to the **Send Back** command () is the **Bring Forward** command (). If we choose the **Bring Forward** command, with the rectangle object in Figure 6-22 selected, the rectangle moves in front of the text object and appears as in Figure 6-20.

When a selected object cannot be sent back or brought forward, Wasp Bar Code Builder will beep. When you bring an object forward or send it back through multiple layers, you can use this as an indicator to know when you have moved it as far as possible.

An Example Using Object Layering

Assume you want to create UPC-A symbology bar codes. Standard UPC-A bar codes always appear with text embedded within the bar codes. See Figure 6-23.

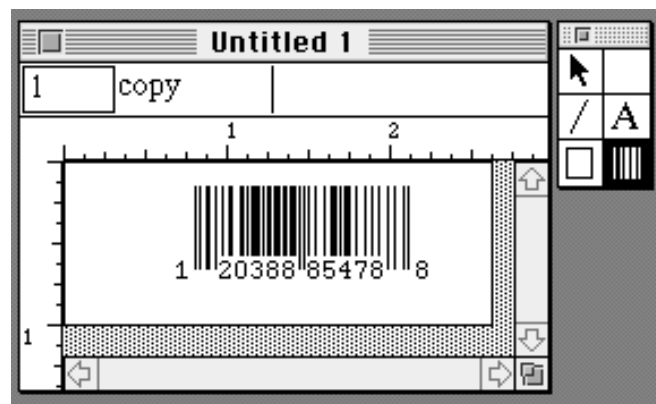


Figure 6-23 UPC-A Bar Code With Embedded Text

To remove the embedded text in the UPC-A bar code, follow these steps:

1. Click on the rectangle tool from the tool palette.
2. Select the white fill color from the fill palette. If the palette is not displayed, select it from the **View** menu.
3. Select the white line color from the line palette.
4. Draw a rectangle approximately the width of the UPC-A bar code.
5. Use the arrow tool to drag the rectangle and cover the embedded text in the bar code object.
6. Resize and adjust as necessary. Figure 6-24 illustrates a UPC-A bar code with the embedded text covered by a rectangle object.

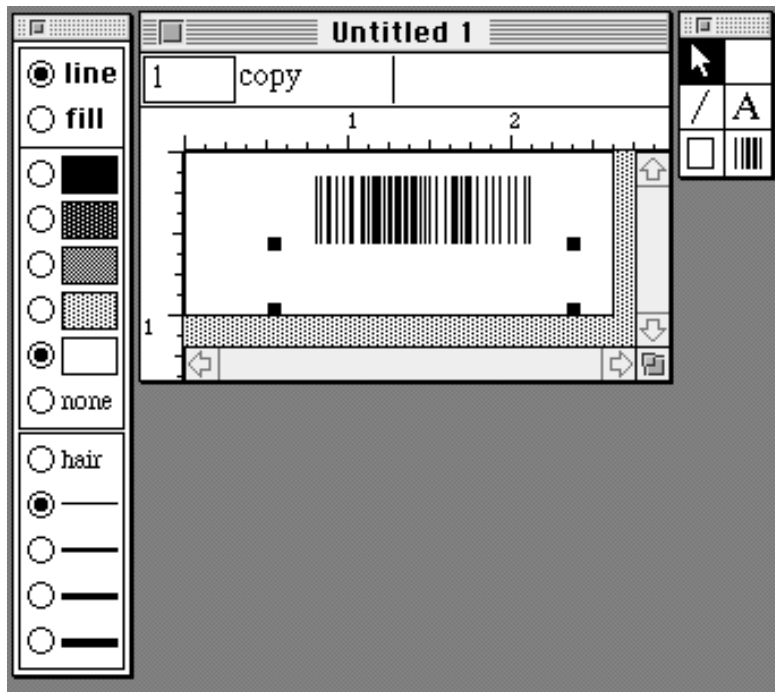


Figure 6-24 UPC-A Bar Code with Embedded Text Covered by Rectangle Object

Aligning Objects

The alignment command allows you to adjust or align the position of selected objects. When Wasp Bar Code Builder executes an alignment, it uses the top layer object (the one whose layer is in front of the others) as the reference and adjusts all other selected objects to it.

An Alignment Example

Assume you want to align the objects in Figure 6-25 with the left edge of the bar code object.

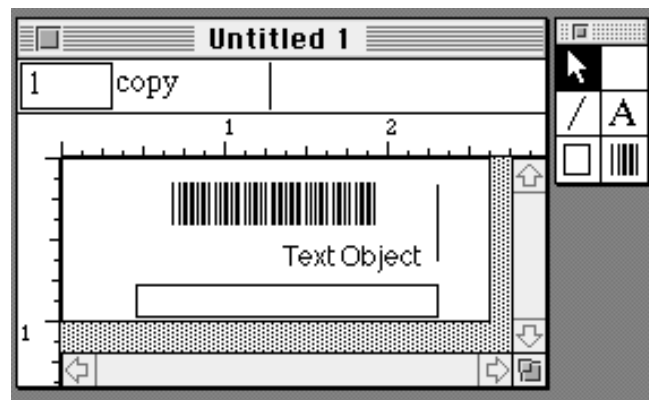


Figure 6-25 Vertical Alignment Example - Objects to Align

Follow these steps:

1. Use the arrow tool to select the bar code object.

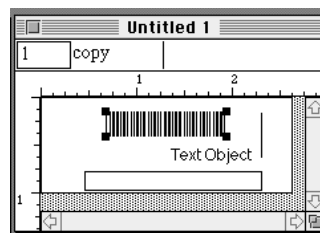


Figure 6-26 Bring Bar Code Object Forward

2. Choose **Bring Forward** from the **Draw** menu or press **=**. Repeat this command until your computer beeps. This indicates that you have brought the bar code object as forward as possible.

3. Hold down the shift key and click on each of the objects in the work area that you want to align. When you have selected all of the objects they should each have handles as they do in Figure 6-27.

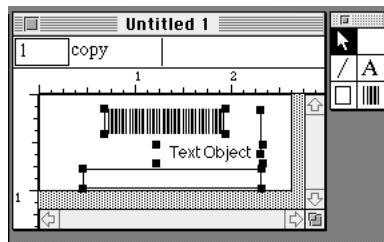


Figure 6-27 Objects Selected

4. Choose **Alignment** from the **Draw** menu. See Figure 6-28.



Figure 6-28 Draw Menu - Alignment Command

5. A window similar to Figure 6-29 appears. When you first open the window, no alignment is selected. The diagram on the left side of the window indicates no alignment.

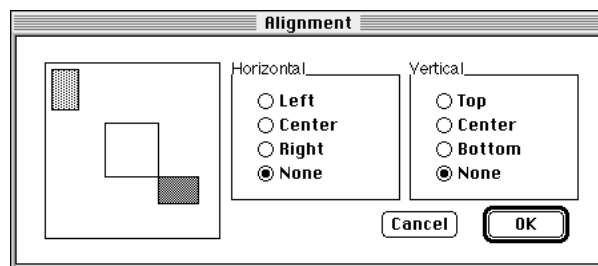


Figure 6-29 Alignment Window

6. Select the **Left** radio button from the **Horizontal** box in the **Alignment** window. Notice the diagram on the left side of the window illustrates the type of alignment action to expect.

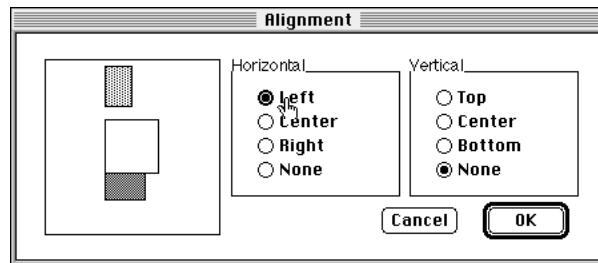


Figure 6-30 Alignment Window - Align Horizontal Left

7. Click **OK** or press **<Return>** to return to the work area. Note the selected objects have been aligned left in relation to the bar code object. See Figure 6-31.

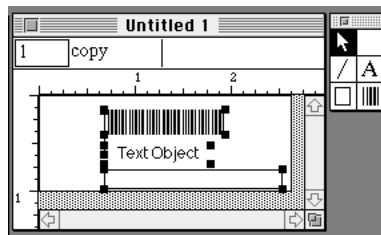


Figure 6-31 Selected Objects After Alignment

Cutting and Pasting Objects

Objects in Wasp Bar Code Builder may be cut or copied to the Clipboard and pasted into other Macintosh programs that support graphics. In addition, Wasp Bar Code Builder supports pasting items from the Clipboard that were cut or copied from other programs.

Caution

Some applications may scale objects differently than Wasp Bar Code Builder intended. This can cause distortion of the bar code and possible loss of readability. Be sure to test the readability of bar codes pasted from the Clipboard.

Cutting or Copying Objects

To place an image into the Clipboard for pasting into another application or document, follow these steps:

1. Select the objects you want to copy. (See the section on selecting objects on page 91.)
2. To copy an image of your objects into the Clipboard and leave the objects intact in the Wasp Bar Code Builder document, choose **Copy** from the **Edit** menu or press **C**.

To delete the selected objects from your Wasp Bar Code Builder document and put them into the Clipboard, choose **Cut** from the **Edit** menu or press **X**.

Pasting Data into a Document

To paste data into your document from the Clipboard, follow these steps:

1. Copy or cut the object or text from its originating program. This could be a draw program, a word processor, another Wasp Bar Code Builder document, or another Macintosh program. Rotate any graphics you want to include in the label document before copying it to the Clipboard.
2. Return to your Wasp Bar Code Builder document.
3. Choose **Paste** from the **Edit** menu or press **V**.
4. Use the arrow tool and the arrow keys to move or resize the object as you want.

Chapter 7

Saving and Printing

This chapter contains instructions for saving and printing your label documents.

Saving and Re-Opening your Document

Choose **Save** from the **File** menu or press **S**, to save your current document. See Figure 7-1.

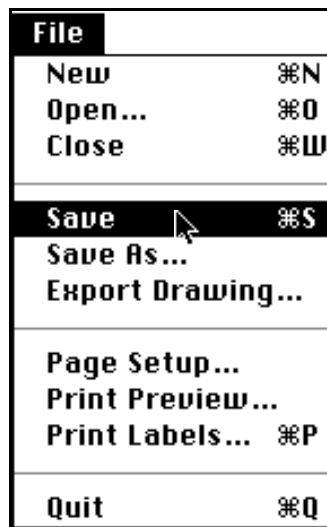


Figure 7-1 File Menu

The **File** menu commands perform the following functions:

New	Opens an untitled document using the current or most recently used label setup.
Open	Opens a saved document.
Close	Closes the current document.
Save	Saves the current document. Prompts for a file name if untitled.
Save As	Saves the current document under a new name. Allows you to rename and relocate your document.
Export Drawing	Saves the selected object as a PICT file with embedded postscript.

Page Setup	Displays a window allowing you to define the page size and other parameters you will use with your selected printer.
Print Preview	Presents a thumbnail sketch on screen of how the labels will appear when you print them.
Print Labels	Prints the current document without preview.
XE "Quit command"	
Quit	Quits Wasp Bar Code Builder.

Viewing a List of Open Documents TC "Viewing a List of Open Documents" \I 1

XE "open document list" XE "View menu"

To view a list of the Wasp Bar Code Builder documents you have opened or to bring forward a different Wasp Bar Code Builder document, use the View menu. See Figure 7-2.

Figure 7-2 View Menu

In Figure 7-2, three open documents are listed: Security, Inventory, and R&D. The check mark (✓) beside Security indicates it is the current document. To bring another document forward, choose the document name from the View menu.

Printing a Document" TC "Printing a Document"" \I 1

Before printing a document, you should do the following:

- Choose Page Setup from the File menu and define your page size and orientation. (Refer to your printer manual for instructions on setting up the printer.)
- Define the size and layout of the labels you will use. Do this by choosing Label Setup XE "Label Setup command" from the Edit menu. (See Chapter 4.)
- Create a label template in the document window. (See Chapters 5 and 6, or refer to the Quick Start section in Chapter 2 for printing.)

These steps insure that your Wasp Bar Code Builder document will print labels consistently each time you use it.

Preview Before Printing

To help verify your labels will print the way you want them to, Wasp Bar Code Builder has a **Print Preview** command. To activate it, choose **Print Preview** from the **File** menu. A window similar to Figure 7-3 appears. Clicking **Print** prints the document. Clicking **OK** closes the **Preview** window.

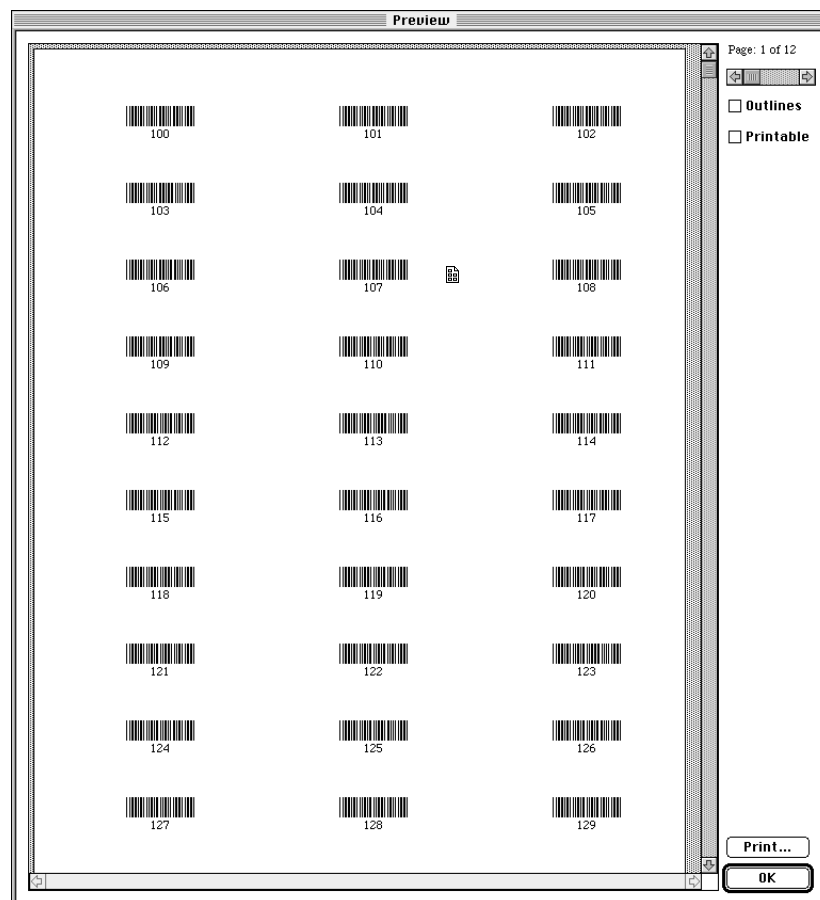


Figure 7-3 Print Preview Window

Use the horizontal and vertical scroll bars to move around the page. To move from page to page, use the page slide bar. See Figure 7-4.

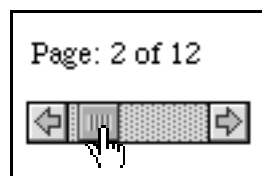


Figure 7-4 Page Slide Bar

Selecting **Outlines** causes Wasp Bar Code Builder to draw an outline of the label boundaries in the Print Preview window. See Figure 7-5.




Figure 7-5 Print Preview Window - Label Boundary Outlines

Selecting **Printable** causes Wasp Bar Code Builder to draw the boundary of the printable area in your Print Preview window. See Figure 7-6. The printable boundary outline is especially helpful to verify the labels will print in their entirety without being cut off or truncated.



Figure 7-6 Print Preview Window - Printable Area Boundary

The  cursor indicates that you may click on the document to zoom out and see the whole page. Figure 7-7 is a full-page view of the document with label outlines enabled.

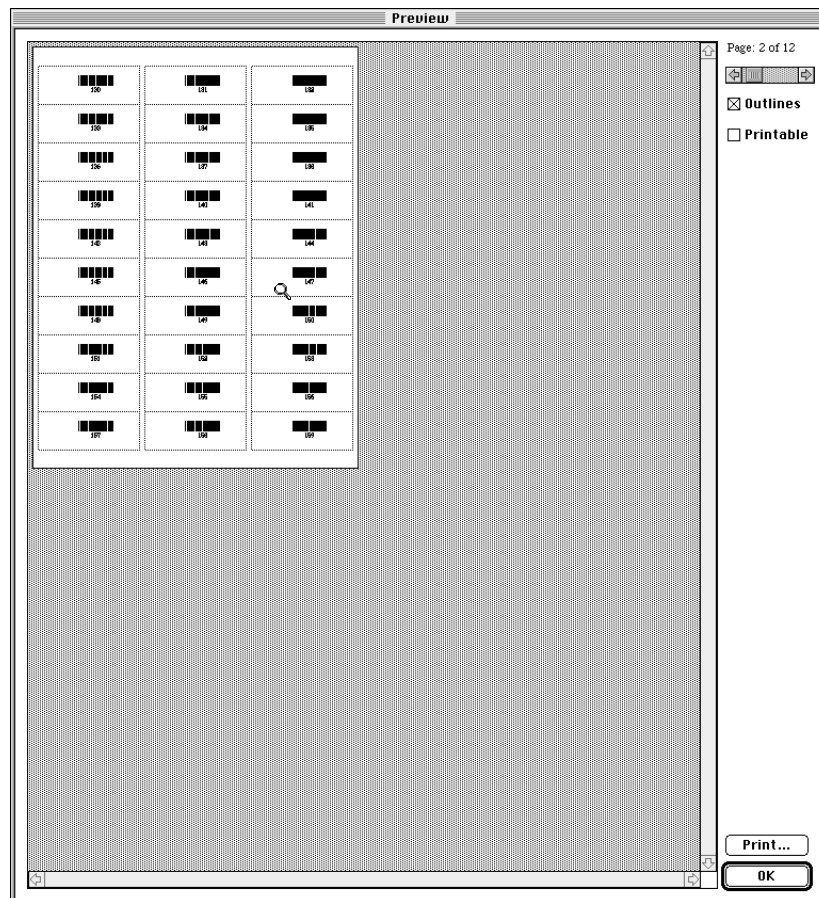


Figure 7-7 Print Preview Window - Zoom-Out

When you have zoomed-out, the pointer becomes a magnifying glass that you may use to zoom-in on a screen location. To zoom-in, click on the location on the page where you want a closer look.

Printing Without a Preview

You may print labels directly from the Edit window by choosing **Print Labels** from the **File** menu or by pressing **P**. See Figure 7-8. Since this method skips the print preview, it is a faster method for printing labels.



Figure 7-8 File Menu - Print Labels Command

When you choose **Print Labels**, a print dialog box similar to Figure 7-9 appears.

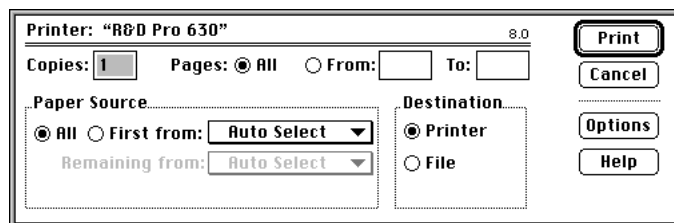


Figure 7-9 Print Dialog Box

Remember!

Most laser printers are not designed to print in the outside 1/2 inch of the paper. Please preview your document carefully before printing to be sure that nothing is omitted.

Refer to your Macintosh User's manual or your printer manual for instructions on the print dialog box.

Optimizing Print Quality

Compensating for Print Bleed

Wasp Bar Code Builder creates bar codes as graphic objects. When you execute the print command, Wasp Bar Code Builder sends a set of instructions to the Macintosh system. The instructions direct the printer, at the printer pixel level, exactly where to print on the page.

Unfortunately, many printers' density controls are not exact enough to keep printer toner or ink from "bleeding" into the adjacent spaces. This effect can be quite detrimental to the quality of your bar codes.

Wasp Bar Code Builder provides a way to counteract printer ink "bleed" by reducing the width of the bar code bars by a given number of printer pixels. See Table 7-1 for adjustment setting suggestions.

Printer Resolution (dots per inch)	Pixel Width (inches)	Suggested Minimum Narrow Bar Width (inches)	Actual Minimum Narrow Bar Width (inches)	Maximum Printer Pixel Adjustment for minimum width
180	.0055	.0150	.0167	0 or 1
300	.0033	.0100	.0100	0 or 1
600	.0017	.0075	.0667	1 or 2

Table 7-1 Suggested Adjust Bar Values

Since individual printers vary in the level of control available to the Macintosh system, you will probably want to experiment to determine which setting produces the highest quality bar codes with your system.

To enable the adjustment, first make sure your bar code(s) is selected. Then open the Bar Code Info window by choosing **Bar Code Info** from the **View** menu or by pressing **M**. Click **More Settings** to expand the Bar Code Info window.

Go to the Printing sub-area of the window and open the **Adjust bar:** pop-up menu to display the list of options. See Figure 7-10.

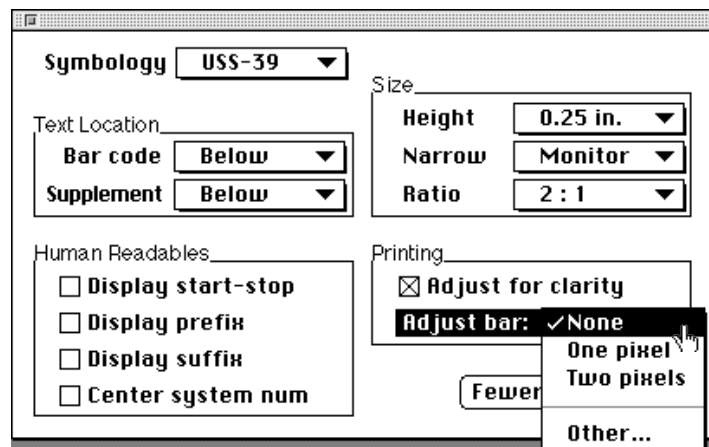


Figure 7-10 Bar Code Info Window - Adjust Bar Pop-Up Menu

You may either choose one of the predefined values or **Other**. Choosing **Other** displays the **Enter Number** dialog box. See Figure 7-11.

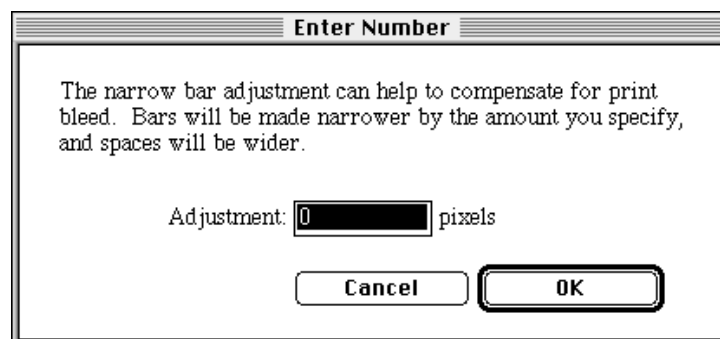


Figure 7-11 Adjust Bar Dialog Box

You may now enter the number of printer pixels to reduce the width of the bar code object bars.

Adjusting for Clarity

Some **Narrow** bar settings will translate to fractional printer pixel widths. For example, a **Narrow** bar setting of .015 inches translates to 4.5 printer pixels on a 300 dpi printer. For some printers, this may give unpredictable results. The **Adjust for clarity** setting adjusts the actual bar and space widths to non-fractional values before sending instructions to the printer.

To invoke adjusting for clarity, select the bar code(s) then go to the Printing sub-area of the Bar Code Info window and make sure the **Adjust for clarity** box is on. See Figure 7-12.

The screenshot shows a window titled "Bar Code Info" with several sections:

- Symbology**: A dropdown menu set to "USS-39".
- Text Location**: Two dropdown menus, "Bar code" and "Supplement", both set to "Below".
- Size**: Three dropdown menus: "Height" set to "0.25 in.", "Narrow" set to "Monitor", and "Ratio" set to "2 : 1".
- Human Readables**: Four checkboxes: "Display start-stop", "Display prefix", "Display suffix", and "Center system num", all of which are unchecked.
- Printing**: A checkbox labeled "Adjust for clarity" which is checked, and a dropdown menu labeled "Adjust bar:" set to "One p...".
- A button labeled "Fewer Settings..." is located at the bottom right.

Figure 7-12 Bar Code Info Window - Adjust for Clarity

Controlling the Number of Copies to Print

The Copy Control field is located above the work area in the Edit window. See Figure 7-13.

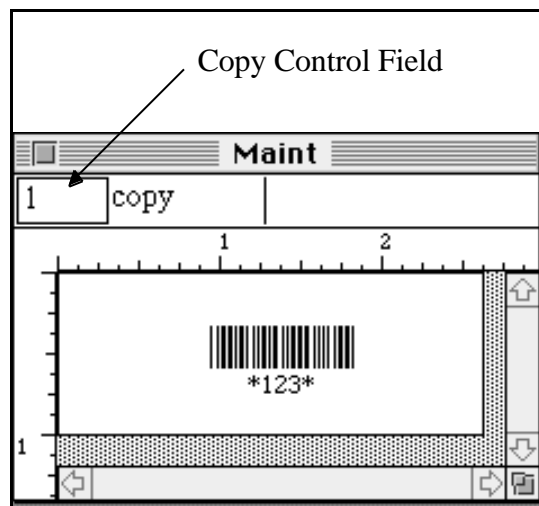


Figure 7-13 Edit Window - Copy Control Field

When a 1 is entered in the Copy Control field, Wasp Bar Code Builder prints one full page of the same label. If a 2 or higher number is entered into the Copy Control field, Wasp Bar Code Builder will print that number of labels. For example, if you enter 2, 2 labels will print; if you enter 3, 3 labels will print, and so on.

To print only one label, you must specify one label across and one label down in the **Label Setup** window. (See pages 35–41.)

If you have attached data or a sequence to the label, Wasp Bar Code Builder will print the number of labels indicated in the Copy Control field for each record in the text data file. (See Chapter 8, Merging Data.)

Saving a Label Document

Wasp Bar Code Builder saves label templates as documents. When you first start Wasp Bar Code Builder, your document window will be named Untitled 1. See Figure 7-14.

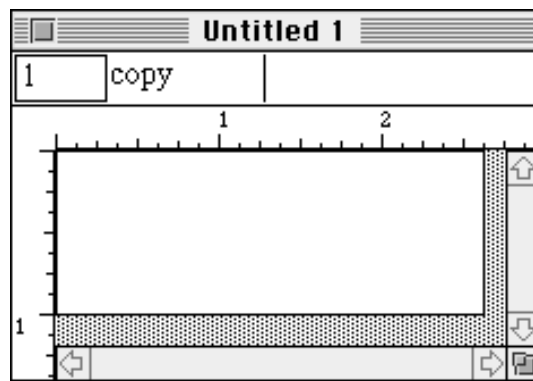


Figure 7-14 Edit Window - Untitled 1 Document

Any subsequent new documents that you open (by choosing **New** from the **File** menu or by pressing **N**) will be named Untitled 2, Untitled 3, and so on.

To save a new document, choose **Save As** from the **File** menu. See Figure 7-15.



Figure 7-15 File Menu - Save As Command

A dialog box similar to Figure 7-16 appears.

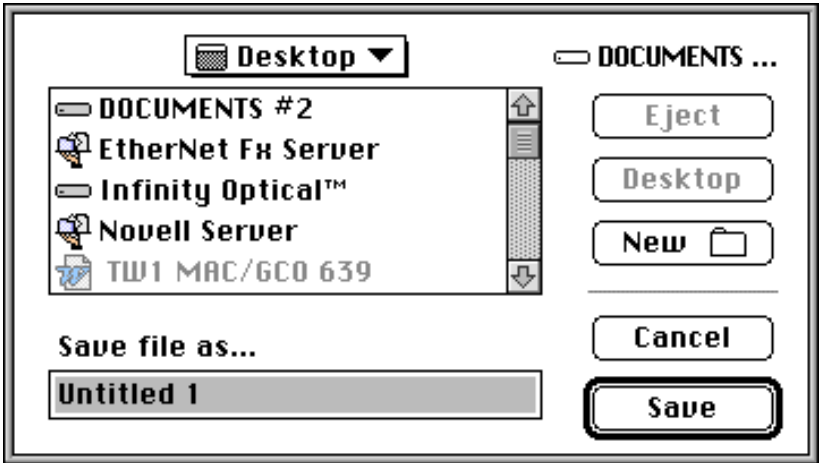


Figure 7-16 Save As Dialog Box

Type in a name for your Wasp Bar Code Builder document and click **Save** to save it.

To save a document that has already been named, choose **Save** from the **File** menu or press **S**.

If you have made changes to a label document and want to save it under a new and separate name, choose **Save As** from the **File** menu. (See Figure 7-15.) Once again, the **Save As** dialog box will appear. (See Figure 7-16.) Enter the new document name and click **Save** or press **<Return>**.

NOTE:

If you desire to create an EPS file of your bar code, you **MUST** have Adobe Illustrator 8.0 or above.

The steps for creating an EPS file:

1. Create your bar code
2. Select your bar code and select "Copy" from the Edit menu, or press **<COMMAND-C>** (Command is the "Apple" button to the left or right of the space bar).
3. Open Adobe Illustrator 8.0 or above.
4. Paste the bar code into a new, untitled Adobe Illustrator document by either pressing **<COMMAND-V>** or selecting Paste from the Illustrator Edit menu.
5. The bar code should appear in the Illustrator document window as traditional vector art. You can now save it as an EPS file, as you would any art file created in Adobe Illustrator 8.0 or above.

Notes:

Chapter 8

Merging Data

This chapter describes the process of merging data from a text file with a label document. It also describes how to create a sequence of labels.

Merging Data

Wasp Bar Code Builder makes it easy to print records from your data files as labels. This process is called “merging data” because each record of your data is merged with a label design. The entire process takes four steps:

1. Design a label.
2. Open your data file/document.
3. Attach objects in the label design to fields in your label document.
4. Print the labels.

You’ve already learned Steps 1 and 4 (Chapters 4, 5, 6, and 7). This chapter describes Steps 2 and 3.

Opening a Data File

Before you open your data file/document, you must be certain that it is in a format that Wasp Bar Code Builder can read. Wasp Bar Code Builder can read and merge data from tab delimited or comma delimited text data files. Most database or spreadsheet programs allow you to save files or documents in these formats. Some accomplish this by using an **Export** command from the **File** menu. Other programs allow you to choose **Save As** from the **File** menu, and then select a text file option.

Whatever database program you use, make sure you have saved a copy of your database as text. Some of the information in the database, like formatting styles, will be lost when you save the data as text. Save a copy as a text file and keep the original for future use.

For more information about text data file format see Appendix A.

To open a text data file in Wasp Bar Code Builder select **Open Data** from the **Data** menu. See Figure 8-1.

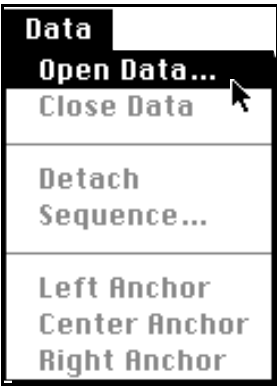


Figure 8-1 Data Menu - Open Data Command

A dialog box similar to Figure 8-2 appears. Select the text data file that you want to merge with your labels and click **Open**.

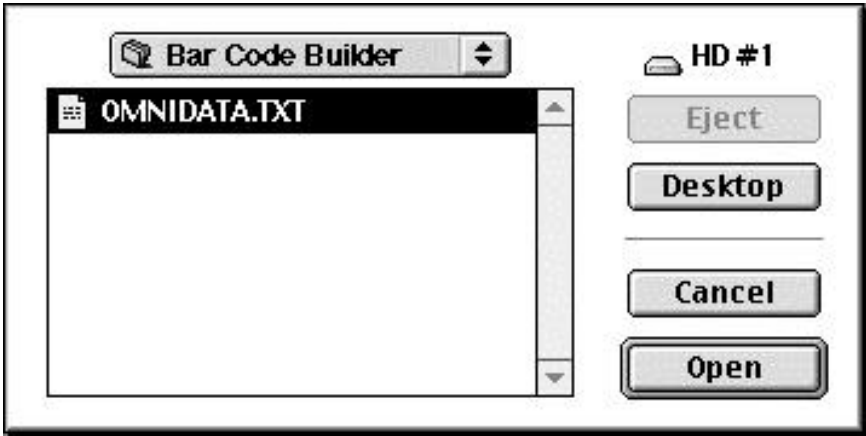


Figure 8-2 Open Dialog Box for Merging Data

The Data Palette

After you have opened a text data file, the data palette appears. See Figure 8-3.

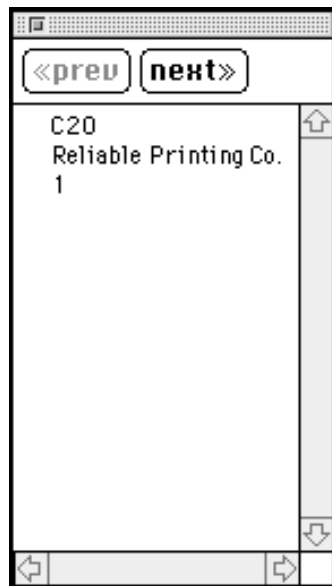


Figure 8-3 Data Palette

The first record of your data file is displayed in the data palette, with each field of the record on a separate line. Field 1 is on line 1, field 2 is on line 2, field 3 is on line 3, and so on.

The name of the data document appears above the Edit window and immediately to the right of the Copy Control field. See Figure 8-4.

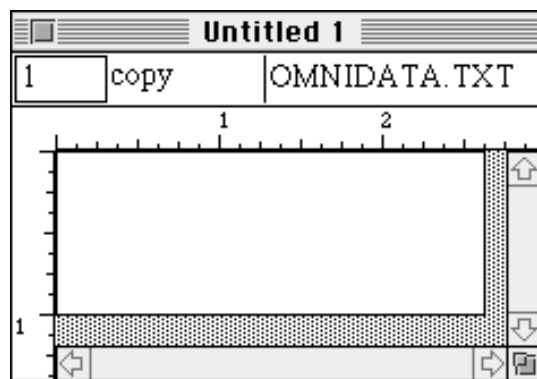


Figure 8-4 Edit Window - OMNIDATA.TXT Document Open

Attaching Data to a Text Object

For the following example, we will use the OMNIDATA.TXT text data file included with your Wasp Bar Code Builder program disk. If you have not done so yet, open the OMNIDATA.TXT file by choosing **Open Data** from the **Data** menu. Select the OMNIDATA.TXT file and click **Open**.

Assume you have a text object in your label design and you want to attach a field from your open data file to that text object. You would follow this process:

1. Create the text object. Create a text object by choosing the text tool from the tool palette. Then click on a location in the work area. See Figure 8-5.

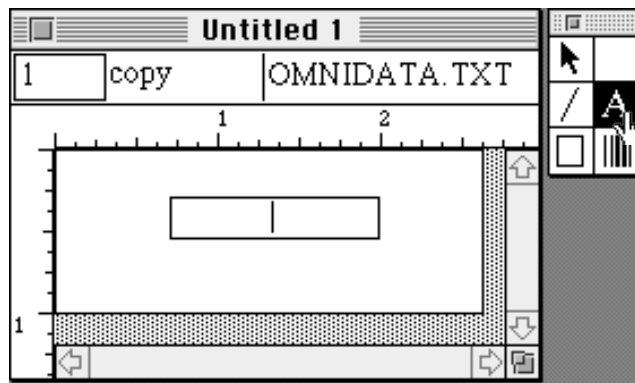


Figure 8-5 Creating a Text Object in the Work Area

2. Select a data field from the data palette. In this example, click on the second field in the data palette. See Figure 8-6. A check mark appears before the data field.

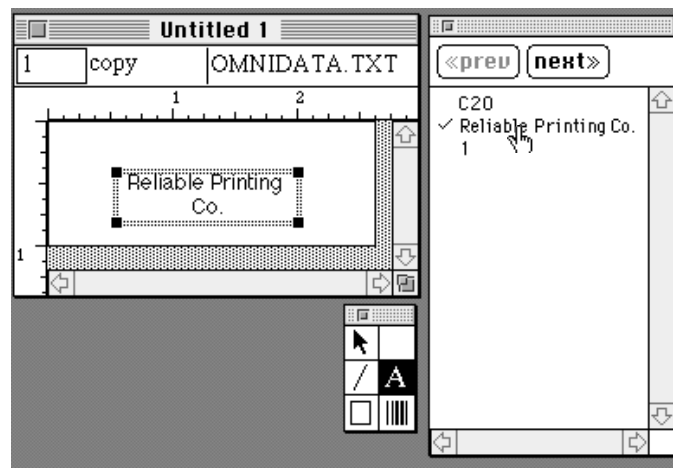


Figure 8-6 Selecting a Field from the Data Palette for Attaching to a Text Object

3. Select the arrow tool from the tool palette. Resize and position the text object as you wish.

Note that the text in Figure 8-6 is center justified. Center-justify the text in your text object by choosing **Center Justify** from the **Draw** menu.

Now that your text object is attached to the second field, you may notice a few differences in the way it behaves. First, it will display with a double-line border if **Display borders around attached objects** is selected in the **Preferences** window. (See Chapter 4 page 47.) The double line border indicates the object is attached to data. (The border does not print when the labels are printed.) Second, and more important, when you print your labels they will merge with the data file. This means each label's contents will change based on the contents of a corresponding record in the data file.

To see how it works, click the **next>>** and **<<prev** buttons on the data palette a few times. You will see different records from your data file displayed in the data palette. See Figure 8-7.

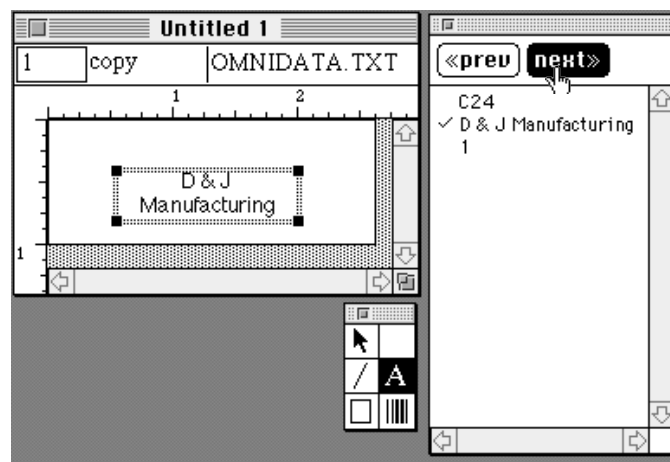


Figure 8-7 Scrolling Through Records in the Data Palette

As Figure 8-7 indicates, the text object displayed in the work area of your label will also consistently change to reflect the changes in the data palette.

You may view how the printed labels appear by choosing **Print Preview** from the **File** menu. This shows you how a full page of labels with attached data will appear. See Figure 8-8.

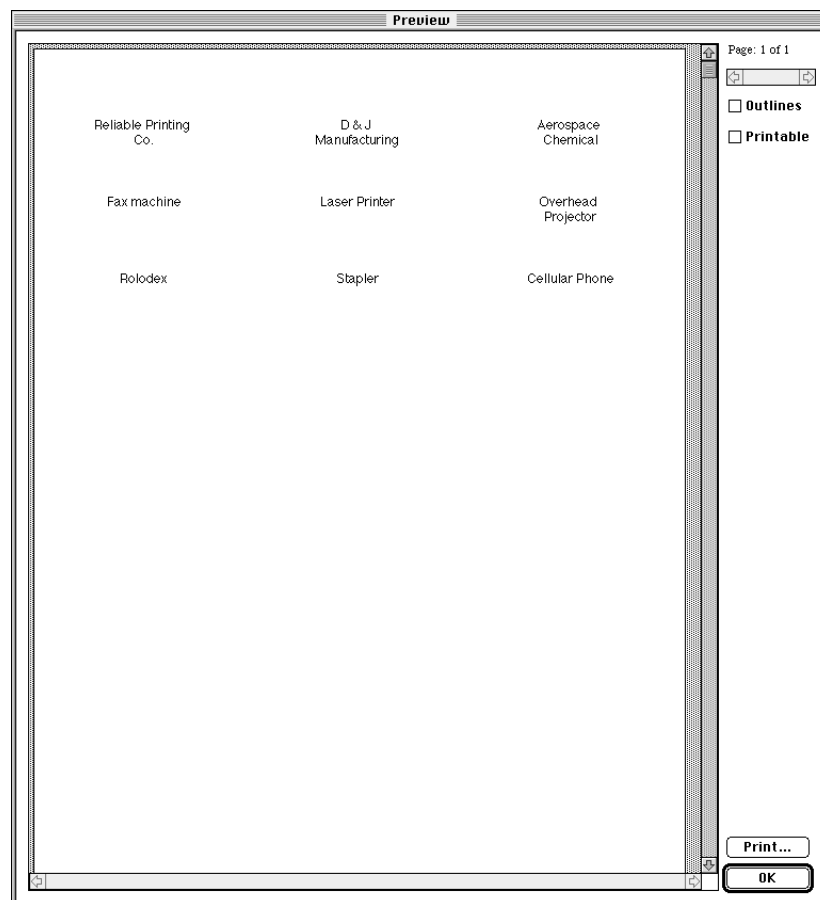



Figure 8-8 Print Preview

To view the whole page, click on the page with the  cursor.

Attaching Data to a Bar Code Object

You attach data to a bar code object the same way you attach it to a text object. Simply select the bar code object, place it in the work area, and choose the field from the data palette that you want to attach it to. See Figure 8-9.

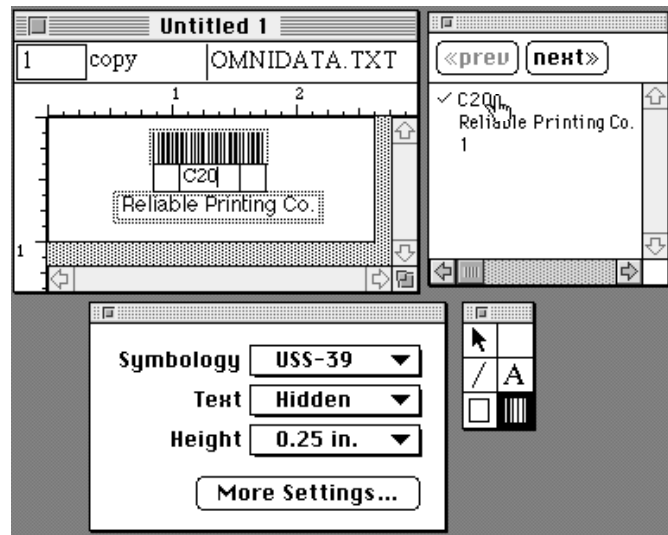


Figure 8-9 Attaching Data to a Bar Code Object

Attaching Data to the Copy Control Field

You can use Wasp Bar Code Builder to print labels for all of the items you have in inventory. Assume you have a database of products. Each record of the database describes a separate product. See Table 8-1.

Part Number	Item Name	Quantity
00001729	bookcase	17
00001730	desk	6
00001731	chair	13
00001732	computer	8
00001733	phone	10

Table 8-1 Inventory Database Example

The first field in the database is “Part Number,” the second field is “Item Name,” and the third field is “Quantity.” The “Quantity” field indicates how many of each product is in stock. The quantities shown in Table 8-1 indicate that you would need to print several labels for each product, in order to label each item in inventory. The number of labels that you need to print is the number that appears in the product’s “Quantity” field.

To print labels for all the items in inventory, attach the Copy Control field to the “Quantity” field by following these steps:

1. Click in the Copy Control field to make it active.

The Copy Control field is in the upper left corner of the Edit window. See Figure 8-10.

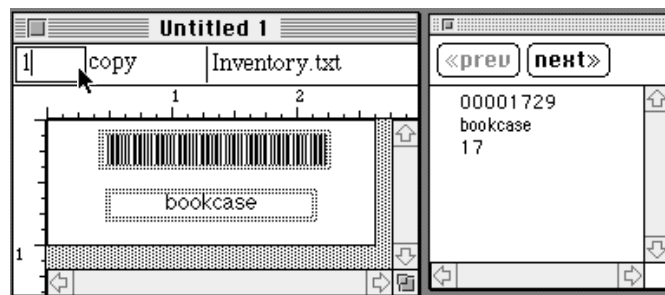


Figure 8-10 Edit Window - Copy Control

2. Click the “Quantity” field at the data palette. See Figure 8-11. This attaches the “Quantity” field to the Copy Control field.

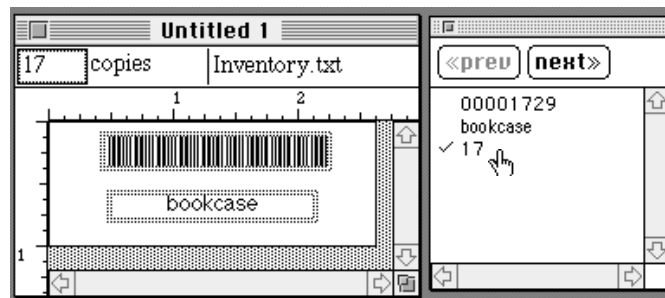


Figure 8-11 Selecting Quantity Field from the Data Palette

Now Wasp Bar Code Builder will print the specified number of copies of each of the items in your database. If an item has a quantity of zero (0) or a negative number, Wasp Bar Code Builder will not create a label for that particular item.

Sequencing

Wasp Bar Code Builder makes it easy to print sequences of numbers as text or bar codes. A sequence of numbers is a list of consecutive numbers. When a text object or bar code object is sequenced, each of the consecutive numbers appears on a separate label.

Attaching a Sequence to a Bar Code Object

Sequencing a bar code object (or a text object) is very similar to attaching data to it. These are the steps:

1. Select the bar code (or text) object.
2. Choose **Sequence** from the **Data** menu. See Figure 8-12.

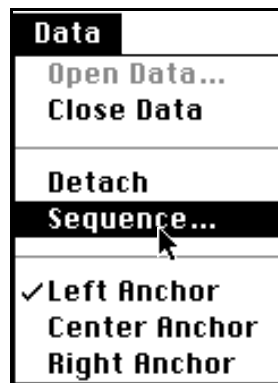


Figure 8-12 Data Menu - Sequence

3. The **Sequence** dialog box appears; use this box to describe the desired sequence. See Figure 8-13.

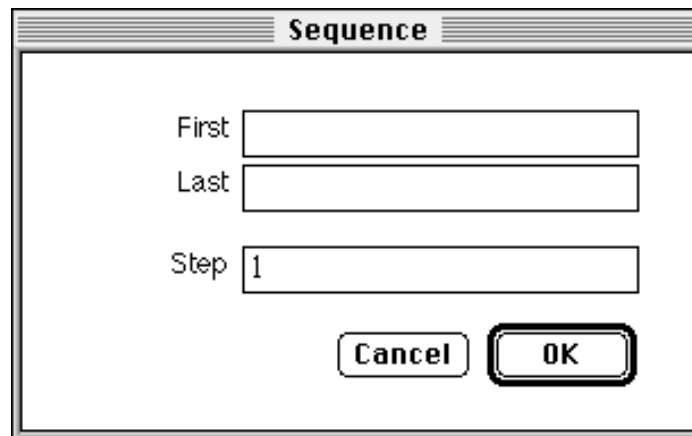


Figure 8-13 Sequence Dialog Box

The **Sequence** dialog box has three fields: **First**, **Last**, and **Step**. Enter the first number of the sequence in the **First** field and enter the last number of the sequence in the **Last** field.

The **Step** value is the increment of each value in the sequence. In other words, it is how much you must add to the first number of the sequence to get the second number.

To print the even numbers between one and ten, for example, you would enter **2** as the first number, **10** as the last number, and **2** as the step value.

Sequencing With Other Attached Data

It is possible to represent both a sequence and attached data in a single bar code. This is done by attaching data to one of the edit areas of the bar code object and attaching a sequence to another edit area. These are the steps:

1. Select the bar code object with the bar code tool from the tool palette. (If you select the bar code object with the arrow tool, instead of the bar code tool, the bar code object's edit fields will not be displayed.)
2. Click in one of the bar code object's edit fields and attach data to it.
3. Click in another of the bar code object's edit fields and attach a sequence.

Saving a Document with Attached Data

When you save an open document, the program automatically saves the link to the attached text data file. When you re-open the document, the text data file that you merged with it also re-opens. If the text data file is missing, the program offers to search for it.

If you make changes to your text data file, Wasp Bar Code Builder automatically remerges the new data with the labels to update before you print. There is no need to re-create the labels.

Detaching a Data Field or a Sequence

To detach an object from its sequence or from a field in the open data file, select the object and choose **Detach** from the **Data** menu. See Figure 8-14.

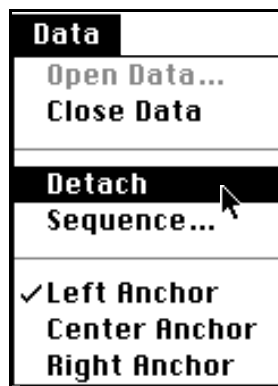


Figure 8-14 Data Menu - Detach Command

When you “detach” an object from a sequence or a data field in your database, the object freezes the value in the edit area. The border that displays with an attached object also disappears. If you “detach” only one of several “attached” objects, you will notice that object is the same for each label printed.

Anchoring Attached Data

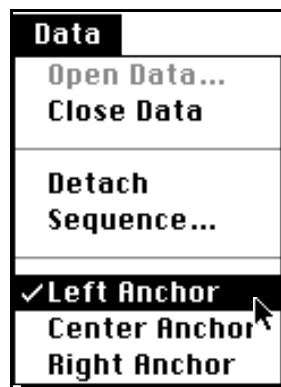


Figure 8-15 Data Menu - Anchor Command

When you attach data to a bar code object, the length of the bar code may vary from record to record as the length of the data in the record also varies. Anchoring attached data fixes a point on the bar code object and dictates how the bar code will expand and contract on the label during a merge.

To invoke anchoring, select the bar code object, then select your anchoring preference from the **Data** menu. See Figure 8-15.

Figures 8-16, 8-17, and 8-18 use the OMNIDATA.TXT file to demonstrate the effect of anchoring on attached data.

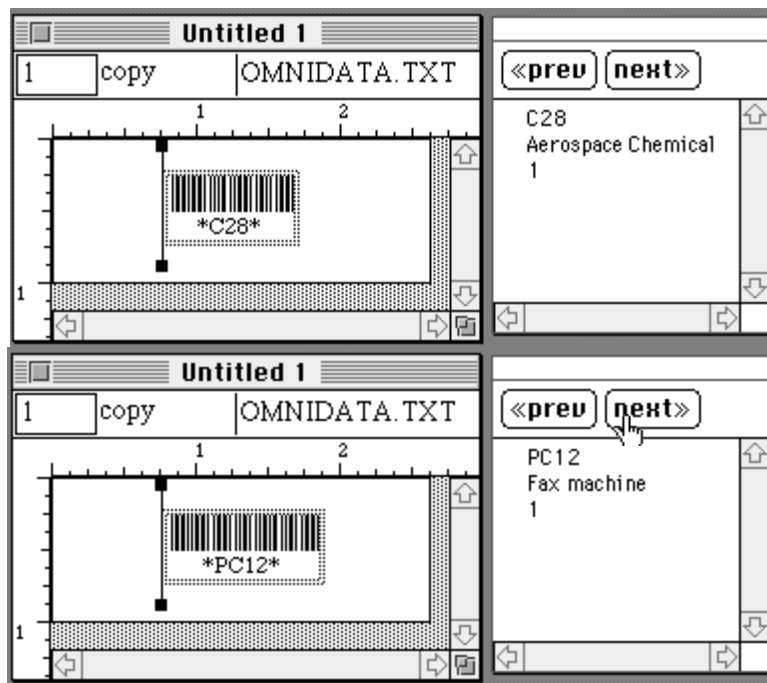


Figure 8-16 Left Anchored Bar Code Object

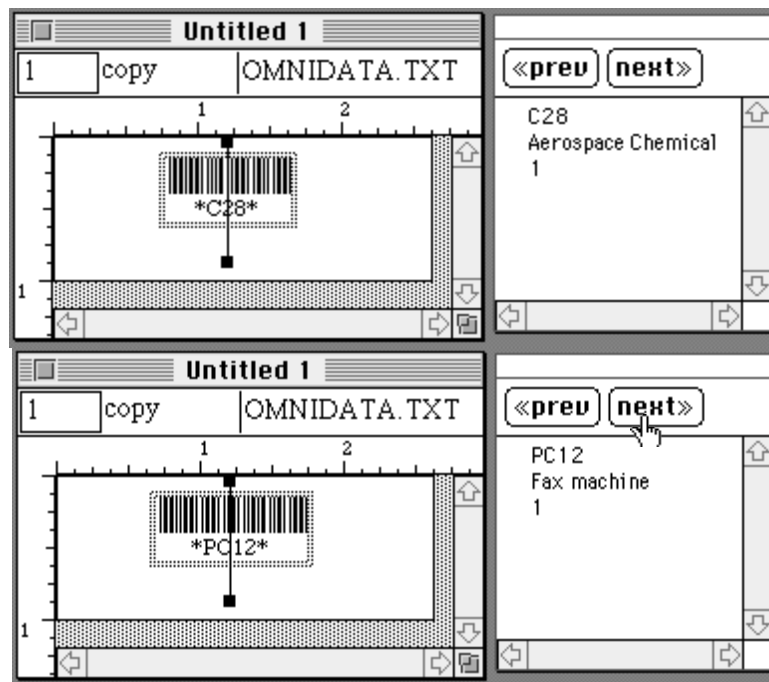


Figure 8-17 Center Anchored Bar Code Object

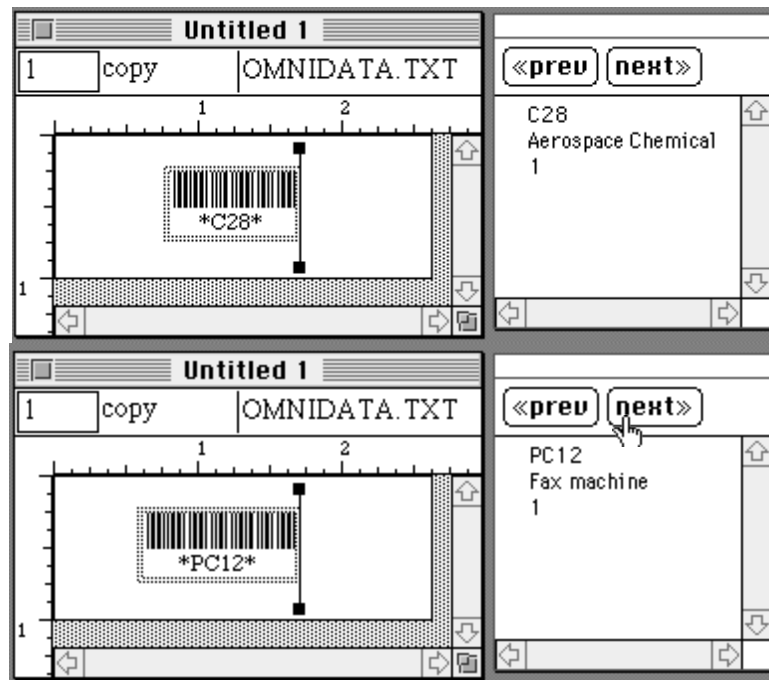


Figure 8-18 Right Anchored Bar Code Object

Appendix A: File Structure for Text Data Files

Appendix A describes Wasp Bar Code Builder's requirements for text data file structure.

File Structure for Text Data Files

Wasp Bar Code Builder has the ability to merge data from a database into labels that you design. This makes it possible for you to print data from your existing databases as bar coded labels. Data that originates from other programs must be properly formatted to successfully merge with a Wasp Bar Code Builder document. (See Chapter 8.)

Wasp Bar Code Builder only reads text data files. Most database or spreadsheet programs allow you to save data or files as text files. Typically, you do this through an **Export** command on the **File** menu. Alternatively, many programs allow you to choose **Save As** from the **File** menu, and then select a text file option.

If you have your data in a database or spreadsheet, and want to print it with Wasp Bar Code Builder, you probably don't need to read the rest of this Appendix. Just save your data as a text file and it will probably be in the correct format.

If your data is not in a database or spreadsheet, and you want to create a text data file for Wasp Bar Code Builder, the easiest way is to enter it into a database, and save it as text (as described above). Alternatively, you can enter it with any text editor. If you create your text data file with a text editor, you must be certain that you create it in the correct format. Following is a description of the formats that Wasp Bar Code Builder understands.

Wasp Bar Code Builder can read two types of text files: tab delimited, or comma delimited. Both types of text files must separate individual records with a carriage return.

When Wasp Bar Code Builder merges data from the text data file, it applies one record to each printed label. So all of the information that you want to appear on a single label should appear in a single line of the text data file. Each line should have a carriage return at the end.

For tab delimited data, the fields of the record should be separated by tabs. See the following example.

Field1	<tab>	Field2	<tab>	Field3	<Return>
Wasp	<tab>	Scanner	<tab>	0123456789	<Return>
Bob's Bicycles	<tab>	Glider	<tab>	0234678465	<Return>
Company C	<tab>	Product	<tab>	666333888	<Return>

For comma delimited data, the fields of the record should be separated by commas. If a field includes a comma, then the entire field must be enclosed by quotes. See the following example.

Field1,	Field2,	Field3	<Return>
"Wasp ",	Scanner,	0123456789	<Return>
Bob's Bicycles,	Glider,	0234678465	<Return>
Company C,	Product,	666333888	<Return>

For both comma delimited and tab delimited text data files, you must be sure that every record has the correct number of fields. If one of your records has an empty field, you should still type the tab or comma for that field as a placeholder.

Notes:

Appendix B: Glossary of terms

Definitions for some of Wasp Bar Code Builder's software features and components are provided in this appendix.

Glossary of Terms

bar code object Draw object that allows you to create and manipulate bar codes. A bar code object is created with the bar code tool in the tool palette. It includes one or more edit fields which allow you to enter the bar code data.

Copy Control field In the top left corner of the Edit window is the Copy Control field. You specify how many copies of each label you want to print by changing the number that appears in the Copy Control field.

data palette The floating window that displays the fields of your open merge file. Draw objects are attached to a field by selecting a field from the data palette while the draw object is selected.

draw object All of the visible items which are created in the Edit window of a label document are draw objects. This includes bar code objects, text objects, line and rectangle objects, and picture objects. Draw objects can be created with any of the tools from the tool palette.

Edit window The window where editing of labels is performed. The Edit window includes the following parts: the work area, Rulers, Copy Control field, and the name of the open merge file.

label design The appearance of the labels in a particular document. As you create draw objects, and move them around the work area, you are designing the appearance of a label. This appearance, along with the attachments to a text data file, represent the label design.

merge file (See text data file.)

preferences Settings in Wasp Bar Code Builder that were in place when you last created or modified an object. Wasp Bar Code Builder stores the most recent settings in a preferences file. Examples of settings are symbology, size, and print options for bar codes; font, style, and size for text; and line and fill selections for line and rectangle objects.

quiet zone The clear or blank areas before the first character and after the last character. While most symbologies specify a minimum width of 10 narrow bar widths for the quiet zone, a minimum of .25 inch may help to optimize hand scanning.

sequence A range of whole numbers. If a sequence is attached to a bar code or text object, the object displays the range of numbers in the sequence. Each label that is printed will have a different number from the range. For example, suppose that a sequence from 1 to 10 is attached to a text object. On the first label printed, the text object will display "1." On the second label printed, it will display "2." On the third it will display "3," and so on.

symbology A symbology is a method of encoding data in black and white bars. Wasp Bar Code Builder supports nine different symbology types. The same data will have a different appearance depending upon the symbology used.

text data file A text data file can be associated with a particular label design. When the label is printed, the data in the text data file will be merged into the label design. This makes it possible to print the data in a text data file as a label.

tool palette The floating window which displays the available tools. Tools include the arrow tool, bar code tool, text tool, line tool, and rectangle tool.

work area The white rectangular area in the Edit window of the Wasp Bar Code Builder software where draw objects are placed. The work area represents a single label or page, and is the size of the label or page that will be printed. You design the appearance of your labels or page by changing the appearance of the work area.

Notes:

Index

—A—

- Adjust bar 120
- Adjusting for clarity 121
- Aligning objects 103
- Alignment command 105
- Anchor command 141
- anchoring attached data 141
- arrow tool 51, 91, 139
- ASCII data file 11
- attaching data 122, 132-140

—B—

- bar code
 - adjusting height 65
 - adjusting size 64
 - attaching data 136
 - creating 6, 50
 - object 16, 52, 150
 - edit areas 58, 74
 - prefix 9, 71, 74
 - readability 70
 - sequence 138
 - sizing 81
 - magnification 66
 - ratio 70
 - start and stop characters 71, 75
 - suffix 9, 71, 74
 - symbology 56, 58, 71, 151
 - system numbers 76-77
 - text 62, 74
 - extra 62
- bar code info
 - displaying 54
- Bar Code Info command 54
- Bar Code Info window 54, 60, 62, 73
- bar code object 16, 150
 - attaching data 136
 - edit areas 9
 - place-holders 46
 - prefix 9
 - sequencing 47, 147
 - suffix 9
- Bar Code Specs command 28
- bar code symbolologies 56, 58

- bar code tool 7, 51
- bar code
 - symbology 56, 58, 71, 151
- Help command 28
- Bring Forward command 101

—C—

- Center justify 80
- Clear command 95
- Close command 110
- Codabar 57, 59, 70, 71, 75
- Code 128 57, 58
- Code 3 of 9 57, 58
- Code 93 57, 58
- Copy command 107
- Copy Control 32, 122
- Copy Control field 122, 150
- Cut command 107
- cutting and pasting 107-108

—D—

- data document 32
 - list of open documents 28
 - name 32
 - saving 123-125
 - saving with attached data 140
- data file 11, 138
 - attaching amount in stock 137
 - detaching 140
 - format 146
 - open 13
 - sequencing 35
- Data menu 30
- data merging 11
- data palette 13, 16, 130, 150
 - sequencing 139
- Data Palette command 28
- Define Type 38
- Delete Type button 40
- detaching data 140
- Displaying Borders Around Attached Objects 47
- document window 6
- Drag rectangles 45
- Draw menu 29
- Duplicate command 95

—E—

EAN 57, 59, 62, 76
edit areas 9, 53, 58, 74
Edit menu 27
Edit window 31, 150
 definition 32
 rulers 32
EPS Files 127
European Article Number 59
Export Drawing command 110

—F—

File menu 26, 110
Fill Pattern command 102
Flip commands 96
Font window 79

—H—

Height pop-up menu 65
hidden text 16

—I—

Interleaved 2 of 5 57, 58
inventory
 printing 136-138

—L—

label
 sizing 36-37
label margins 37
label setup 35, 150
Label Setup command 11, 112
label spacing 38
label type
 definition 38
 deleting 40
label types 12
left justify 80
lessons 5
Levels of undo 48
line object
 straight lines 90
Line Pattern command 88, 102

line tool 51, 90

—M—

magnification 66
merge file 150
merging data 11, 127, 140

—N—

narrow bar 66, 121
narrow bar width 66
New command 110, 123
number of copies 122

—O—

objects 84-108, 150
 cutting and pasting 107-108
 deleting 95
 duplicating 95
 grouping 93-94
 moving 95
 rotating 96-97
 selecting 91-92
 selecting all 92
 selecting multiple 92
 ungrouping 94
Open command 110
Open Data command 13, 128, 132
open document list 111
outlines box 115

—P—

Page Setup command 111
page slide bar 114
Paste command 108
Performance Options 45
preferences 150
Preferences command 33, 36
prefix 9, 71, 74
print bleed 119
Print Labels command 111, 122
Print Preview command 20, 21, 111, 113, 134
Print Setup command 33
printable boundary outline 115
printable box 115

printable ratio 71
printing 21, 113

—Q—

Quick Start 5
quiet zone 150
Quit command 111

—R—

ratio, bar code 70
readable text 73
rectangle object
 line pattern 86-89
rectangle tool 51, 86-89, 102
Right justify 80
Rotate commands 96
rulers 32
Rulers command 28, 43

—S—

Save As command 110, 124, 125
Save command 110
saving a document 123-125
Select All command 92
Sequence 138
sequencing 140, 151
 detaching a sequence 140
setup
 label 11
 page 33
square object
 creating 87
suffix 9, 71, 74
symbology 56, 58, 71, 151

—T—

text
 bar code 60
 edit area 85
 hidden 16
text data file 151
text object
 attaching data 132-135
 creating 18, 85-86, 132
 sequencing 138
text tool 17, 51, 85
tool palette 7, 17, 50-51, 84, 90, 151
Tool Palette command 28

tutorial 5

—U—

Undo command 84, 95
Ungroup command 94
units of measure 44
Universal Product Code 57, 58
UPC 57, 58, 62
 hiding embedded text 103
USS-128 57, 58, 71
USS-39 57, 58, 60, 70, 71, 75, 81
USS-93 57, 58, 71
USS-I 2/5 57, 58, 70

—V—

View menu 28, 50, 111

—W—

work area 6, 32, 33, 52, 85, 151
 rulers 32
 sizing 36-37

—X—

X-dimension 66